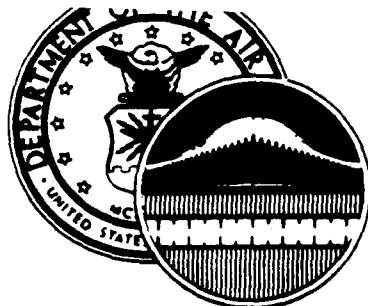


AD-A207 988



UNITED STATES AIR FORCE

# OCCUPATIONAL SURVEY REPORT

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ELECTE  
MAY 16 1989  
S H D

AVIONIC COMMUNICATION AND NAVIGATION SYSTEMS

AFSC 455X2  
(FORMERLY AFSCs 328X0 AND 328X1)

AFPTs 90-328-818 and 90-328-819

MARCH 1989

**OCCUPATIONAL ANALYSIS PROGRAM  
USAF OCCUPATIONAL MEASUREMENT CENTER  
AIR TRAINING COMMAND  
RANDOLPH AFB, TEXAS 78150-5000**

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AF/REPX (WASH DC 20330)	1			
AFHRL/MODS	2	1m Set	1m Set	1 Set
AFHRL/ID	1	1m Set	1m/1h Set	1 Set
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HQ PACAF/DPAT	3		3 Sets	
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HQ SAC/TTGT	1		1 Set	
HQ TAC/DPATJ	3		3 Sets	
HQ TAC/TTGT	1		1 Set	
HQ USAF/DPPE	1			
HQ USAF/LEYM	1		1 Set	
HQ USAFE/DPAT	3		3 Sets	
HQ USAFE/TTGT	1		1 Set	
HQ USMC (CODE TPI)	1			
NGB/MP (WASH DC 20330)	2			
NODAC	1			
355 TTW/MAT	2		2 Sets	
3300 TCHTW/TTGX (KEESLER AFB MS)	3	2 Sets	3 Sets	1 Set
3300 TCHTW/TTS (KEESLER AFB MS)	1		1 Set	
3507 ACS/DPKI	1			
3785 FLDTG/TTFO	2		2 Sets	
USAFOMC/OMDQ	1			
USAFOMC/OMYXL	10	2m Sets	5 Sets	10 Sets
DET 3, USAFOMC (KEESLER AFB MS)	1	1 Set	1 Set	1 Set
DET 20, HQ AFSC/DPAT	3		3 Sets	

m = microfiche only

h = hard copy only

\* Includes a copy of both the AFSC 328X0 and 328X1 Job Inventories

\*\* Extract sets include a copy of both the AFSC 328X0 and 328X1 computer printouts

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## PREFACE

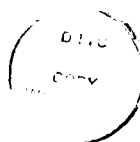
This report presents the results of Air Force occupational surveys of the Avionic Communications (328X0) and Avionic Navigation Systems (328X1) career ladders. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products used in this report are available for use by operations and training officials.

Mr William C. Cosgrove, Occupational Analyst, developed the survey instrument for AFSC 328X0, and Second Lieutenant Wendy Limbaugh, Occupational Analyst, developed the survey instrument for AFSC 328X1. Mr Cosgrove analyzed the survey data for both AFSCs and wrote the final report. Technical Sergeant Joseph E. Seitz and Ms Olga Velez provided computer programming support, and Mr Richard G. Ramos provided administrative support. This report has been reviewed and approved for release by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies may be requested from the Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph AFB, Texas 78150-5000.

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## SUMMARY OF RESULTS

1. Survey Coverage: Inventory booklets were administered worldwide to Avionic Communications (AFSC 328X0) and Avionic Navigation Systems (AFSC 328X1) incumbents during the winter of 1987. The 1,506 respondents in the AFSC 328X0 survey sample represent 71 percent of all assigned Avionic Communications personnel, while the 1,609 respondents in the AFSC 328X1 survey sample represent 70 percent of all assigned Avionic Navigation Systems personnel. All major using commands are well represented in both survey samples.
2. Career Ladder Structure: The career ladder structure of each AFSC was independently analyzed. AFSC 328X0 had three job clusters and nine independent job types identified in the analysis, while AFSC 328X1 had five job clusters and seven independent types job identified. Three job clusters and four independent jobs of AFSC 328X0, and four job clusters and two independent jobs of AFSC 328X0 were directly involved in the performance of various technical duties of the specific career ladder. The remaining clusters and independent job types were oriented toward supervisory, managerial, administrative, and training functional areas.
3. Career Ladder Progression: The 3- and 5-skill level jobs in both AFSCs were quite technical in nature, with limited responsibilities at the 5-skill level for supervision-type duties. Seven-skill level members also perform technical duties, but report increasing responsibility for supervisory and managerial duties.
4. AFR 39-1 Specialty Description: All descriptions accurately depict the characteristics of the respective jobs in the merged AFSC 455X2.
5. Training Analysis: Due to the merger of AFSC 328X0 and 328X1 into AFSC 455X2, the three STSs, one for MAC, one for SAC, and one for TAF, of this AFSC were used for analysis. The three STSs are generally well supported by the survey data, with just a few elements requiring review because of nonsupporting data. The Plans of Instruction (POI) have a few objectives which require review due to the low percentage of first-enlistment airmen performing tasks trained. Some tasks not matched to training documents require evaluation.
6. Additional Issues: The training community requested information on navigation tasks performed by communications personnel, communications tasks performed by navigation personnel, and inspections performed by airmen with AFSC 328X0. The data reflect that few individuals perform tasks of an AFSC other than their own. Of the 15 inspections listed in the survey, the data show that only four have 50 percent of the first-enlistment airman perform.
7. Implications: This OSR is the baseline for a future OSR of the new AFSC 455X2. The survey data from the two occupational surveys of AFSC 328X0 and AFSC 328X1 show that the training program established for AFSC 45532 is well grounded. Some minor adjustments to the STS and POI might be considered by the training personnel and major command functional managers based on the survey data. Data from the surveys should be of value in establishing cross-training programs.

OCCUPATIONAL SURVEY REPORT  
AVIONIC COMMUNICATIONS AND  
AVIONIC NAVIGATION SYSTEMS CAREER LADDERS  
(AFSC 328X0 AND 328X1)

INTRODUCTION

This is a report of occupational surveys of the Avionic Communications and Avionic Navigation Systems career ladders completed by the USAF Occupational Measurement Center in December 1988. These career ladders were previously surveyed with a single job inventory in 1981, with the survey results being published in September of that year. The present surveys were requested by the 3800th Technical Training Wing, Keesler Technical Training Center, to obtain current task and equipment data for use in evaluation of each career ladder training program. Separate surveys were requested and conducted. Because of a RIVET WORKFORCE-directed merger of these two AFSCs, and the combining of the training programs on 31 October 1988, the results of the two surveys are reported in a single report.

In addition to surveying active duty military personnel, Air Force Reserve Component personnel, including members of the USAF Reserve and Air National Guard, were also included in these surveys. The purpose for including these personnel in the surveys was to gather data on them as a group, analyze their responses just as the active military responses are, and determine whether there are discernible differences between active and reserve component categories of personnel. Data gathered from Air Force Reserve Component personnel were analyzed separately, and the results will be published in a separate supplemental report at a later date.

Survey data for AFSCs 328X0 and 328X1 personnel should provide valuable information for use in the RIVET WORKFORCE-directed merger of AFSC 328X0, AFSC 328X1, and the Doppler portion of AFSC 328X4 (Avionic Inertial and Radar Navigation Systems) into the newly created career ladder which has been designated AFSC 455X2, Communications and Navigation Systems specialty. The merger was effective 31 October 1988. The data from these surveys provide a picture of the communications and navigation systems portion of AFSC 455X2 immediately prior to the RIVET WORKFORCE-directed merger, and will serve as the baseline for the next AFSC 455X2 occupational survey.

Background

Since their creation as separate career ladders in May 1951 with the establishment of AFSCs 301X0 (Aircraft Radio Repair) and 301X1 (Aircraft Electronic Navigation Equipment Repair), both AFSCs have had fairly stable histories. In January 1972, AFSC 301X0 was changed to AFSC 328X0 and AFSC 301X1

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changed to AFSC 328X1, with no change in responsibility. Through the years, minor changes were brought about by changes in equipment and systems for both AFSCs, but were not significant enough to warrant a change of AFSC.

Avionic Communications (AFSC 328X0). The 1 February 1988 AFR 39-1 specialty descriptions state that AFSC 328X0 personnel were responsible for the installation, inspection, troubleshooting, maintenance, modification, repair and overhaul of avionic communications equipment and related test equipment. The administrative requirement to prepare accurate records for the avionic equipment maintained is also included in the responsibilities of the AFSC.

Entry into the career ladder was from Basic Military Training School (BMTS) through a Category A, 24-week, 3-day formal training course (3ABR32830) conducted at Keesler AFB MS. A score of 61 in the electronic part of the Armed Services Vocational Aptitude Battery (ASVAB) was required to enter the career ladder.

Avionic Navigation Systems (AFSC 328X1). The 1 February 1988 AFR 39-1 specialty descriptions state that AFSC 328X1 personnel were responsible for the installation, inspection, troubleshooting, maintenance, modification, repair, and overhaul of avionic navigation systems equipment and related test equipment. Preparation of accurate records for the avionic equipment maintained is also an administrative responsibility of the AFSC.

Entry into the career ladder was from BMTS through a Category A, 27-week, 3-day formal training course (3ABR32831) conducted at Keesler AFB MS. A score of 67 in the electronic part of the ASVAB was required to enter the career ladder.

## SURVEY METHODOLOGY

### Inventory Development

Data for this survey were collected using USAF Job Inventory, AFPT 90-328-417 (October 1987) for AFSC 328X0 and USAF Job Inventory, AFPT 90-328-819 (October 1987) for AFSC 328X1. The Inventory Developers, working independently, reviewed pertinent career ladder documents, the previous OSR and previous inventory, and then prepared a tentative task list for their respective AFSC. These preliminary task lists were then refined and validated through personal interviews with 65 subject-matter experts for AFSC 328X0 and 30 subject-matter experts for AFSC 328X1. These subject-matter experts were assigned to 15 operational locations selected to cover a variety of Major Commands (MAJCOM) and varying functions. Data concerning the bases visited and the rationale for the visit can be found at Appendix A.

The resulting AFSC 328X0 inventory contains a comprehensive list of 859 tasks grouped into 24 duty headings. The AFSC 328X1 inventory has a comprehensive list of 1,171 tasks grouped into 22 duty headings. Each survey has standard background questions asking for grade, duty title, functional level,

duty AFSC, time in service, time in present job, and time in career ladder. In addition, there are questions requesting such information as test equipment used, type of equipment maintained, kind of aircraft worked on, job satisfaction, and intent to reenlist.

#### Survey Administration

From November 1987 to April 1988 for the AFSC 328X1 survey, and December 1987 to April 1988 for the AFSC 328X0 survey, Consolidated Base Personnel Offices at operational bases worldwide administered the respective surveys to Avionic Communications and Navigations Systems military personnel. Participants came from computer-generated mailing lists provided by the Air Force Human Resources Laboratory (AFHRL).

All individuals who filled out an inventory first completed an identification and biographical information section. Next, they answered questions in the background portion of the inventory. They were then directed to go through the booklet and check each task performed in their current job. Finally, they were asked to go back and rate each task they had checked using a 9-point scale reflecting relative time spent on each task compared to all other tasks. Ratings ranged from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent). The relative time spent on tasks was computed by first totaling all rating values on the inventory. Then the rating value for each task was divided by this total and the result multiplied by 100. The percent time spent ratings were used with the percent members performing values to help describe the various groups in the career ladder.

#### Survey Sample

All eligible military personnel in each career ladder were provided survey booklets. The respondents represent an accurate and proportional representation of MAJCOMs and paygrades for these career ladders. Tables 1 (AFSC 328X0) and 2 (AFSC 328X1) reflect how the samples compare to the actual populations of the career ladders in terms of the distribution across MAJCOM. Tables 3 (AFSC 328X0) and 4 (AFSC 328X1) show the paygrade distribution for the sample and assigned populations. These data indicate a good representation of both career ladders in the final samples.

#### Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected E-6 and E-7 supervisors completed either a training emphasis (TE) or task difficulty (TD) booklet. These booklets were processed separately from the job inventories and the TE and TD data were used in several analyses discussed later in this report.



TABLE 1  
COMMAND DISTRIBUTION OF AFSC 328X0 MILITARY PERSONNEL

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE**</u>
MAC	31	32
SAC	27	27
TAC	20	20
ATC	8	9
USAFE	6	4
PACAF	4	4
AFSC	3	4
AAC	1	1
OTHER	-	-

TOTAL ASSIGNED: 2,125  
TOTAL ELIGIBLE FOR SURVEY\*\*: 1,908  
TOTAL IN SAMPLE: 1,506  
PERCENT OF ASSIGNED IN SAMPLE: 71%  
PERCENT OF ELIGIBLE IN SAMPLE: 79%

- \* Assigned strength as of 22 September 1987
- \*\* Excludes those personnel in PCS, student, or hospital status or with less than 6 weeks on the job
- Less than .5 percent

TABLE 2  
COMMAND DISTRIBUTION OF AFSC 328X1 MILITARY PERSONNEL

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE**</u>
MAC	34	34
SAC	27	27
TAC	16	15
ATC	9	10
USAFE	6	6
PACAF	4	5
AFSC	3	2
AAC	1	1
OTHER	-	-

TOTAL ASSIGNED: 2,295  
TOTAL ELIGIBLE FOR SURVEY\*\*: 2,046  
TOTAL IN SAMPLE: 1,609  
PERCENT OF ASSIGNED IN SAMPLE: 70%  
PERCENT OF ELIGIBLE IN SAMPLE: 79%

- \* Assigned strength as of 25 September 1987
- \*\* Excludes those personnel in PCS, student, or hospital status or with less than 6 weeks on the job
- Less than .5 percent

TABLE 3  
PAYGRADE DISTRIBUTION OF AFSC 328X0 SURVEY SAMPLE

<u>GRADE</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE</u>
E-1 THRU E-3	27	30
E-4	22	19
E-5	29	29
E-6	14	15
E-7	8	7
E-8	-	-

\* Assigned strength as of April 1987  
- Less than 1 percent

TABLE 4  
PAYGRADE DISTRIBUTION OF AFSC 328X1 SURVEY SAMPLE

<u>GRADE</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE</u>
E-1 THRU E-3	19	21
E-4	26	22
E-5	32	33
E-6	15	16
E-7	8	8
E-8	-	-

\* Assigned strength as of April 1987

- Less than 1 percent

Training Emphasis (TE). Training emphasis is the amount of structured training that first-term AFSC 328X0 and 328X1 personnel need to successfully perform tasks. Structured training is defined as training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Seventy-three AFSC 32870 and 58 AFSC 32871 supervisors completed TE booklets. They rated the tasks in their respective inventory on a 10-point scale ranging from no training required (0) to extremely high training emphasis (9). Interrater reliability (as assessed through components of variance of standard group means) for AFSC 328X0 raters was .96, and for AFSC 328X1 raters it was also .96, indicating very high agreement among raters of each AFSC.

When TE ratings are used with other information, such as percent members performing and task difficulty, they can provide insight into training requirements and help validate the need for organized training for the career ladder.

Task Difficulty (TD). Task difficulty is defined as the length of time the average airman takes to learn how to perform a task. Fifty-five AFSC 32870 and 58 AFSC 328X1 supervisors rated the difficulty of the tasks in their respective inventories on a 9-point scale ranging from 1 (easy to learn) to 9 (very difficulty to learn). Ratings were adjusted so tasks of average difficulty would have a value of 5.0. Interrater reliability (as assessed through components of variance of standard group means) for AFSC 328X0 raters was .96, and for AFSC 328X1 raters it was also .96, indicating high agreement among raters for both AFSCs.

TD ratings, when used with percent members performing values and TE ratings, can provide a great deal of insight into training requirements, help validate the need for organized training, and be used to evaluate plans of instruction for the career ladder.

#### SPECIALTY JOBS (Career Ladder Structure)

A USAF occupational analysis begins with an examination of the career ladder structure of jobs performed by personnel of the AFSC. Since these surveys were administered separately, the two career ladders, Avionic Communications and Avionic Navigation Systems, were examined separately. The structure of jobs within each of the career ladders was based on the similarity of tasks performed and the percent time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a job. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those

tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the job inventory. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

The basic identifying group used in the hierarchical job instructing process is the job. When there is a substantial degree of similarity between jobs, they are grouped together and identified as a job cluster. Specialized jobs too dissimilar to fit within a job cluster are labeled independent jobs. The job structure information resulting from this grouping process (the various jobs within the career ladder) can be used to evaluate the accuracy of career ladder documents (AFR 39-1 Specialty Descriptions and Specialty Training Standards) and to gain a better understanding of current utilization patterns. The above terminology will be used in the discussion of both AFSCs 328X0 and 328X1 career ladder structures.

#### Overview of Specialty Jobs

Each AFSC was analyzed separately. There are, however, areas in which the job inventories have similarities that impact on job typing. Each job inventory can be broken down into several categories of duties which help identify and define specific jobs. The categories break down into a general area dealing with supervisory, managerial, training, and administrative duties; a technical area including the AFSC-specific duties; and finally, a second technical area covering cross-utilization-trained (CUT) duties and duties specific to the other AFSC. The technical AFSC-specific duties include one duty dealing with general avionic maintenance and a number of duties which deal with systems peculiar to the AFSC. These duties are made up of tasks which can be performed either on-equipment (flightline) or off-equipment (field shop), with very few being performed in both places. The relative time spent in a specific duty is not in itself indicative of a particular job, as may be the case in other surveys. High relative time spent in a duty must be viewed from the task level to properly identify the job. High relative time spent on flightline tasks indicates an on-equipment type job as opposed to an off-equipment type job which also could have the same high relative time spent in that same duty, but for field shop tasks. Jobs related to the field shop normally require a greater depth of skills and knowledge than those performed on-equipment and tend to entail a broader scope of tasks. Flightline jobs, on the other hand, normally include more tasks and greater relative time spent on the CUT duty sections.

In the Avionic Communications (AFSC 328X0) career ladder, a total of four job clusters and 10 independent jobs were identified. There were a total of five job clusters and seven independent jobs identified in the Avionic Navigation Systems (AFSC 328X1) career ladder. Job structure analysis and job descriptions will be presented separately for each career ladder.

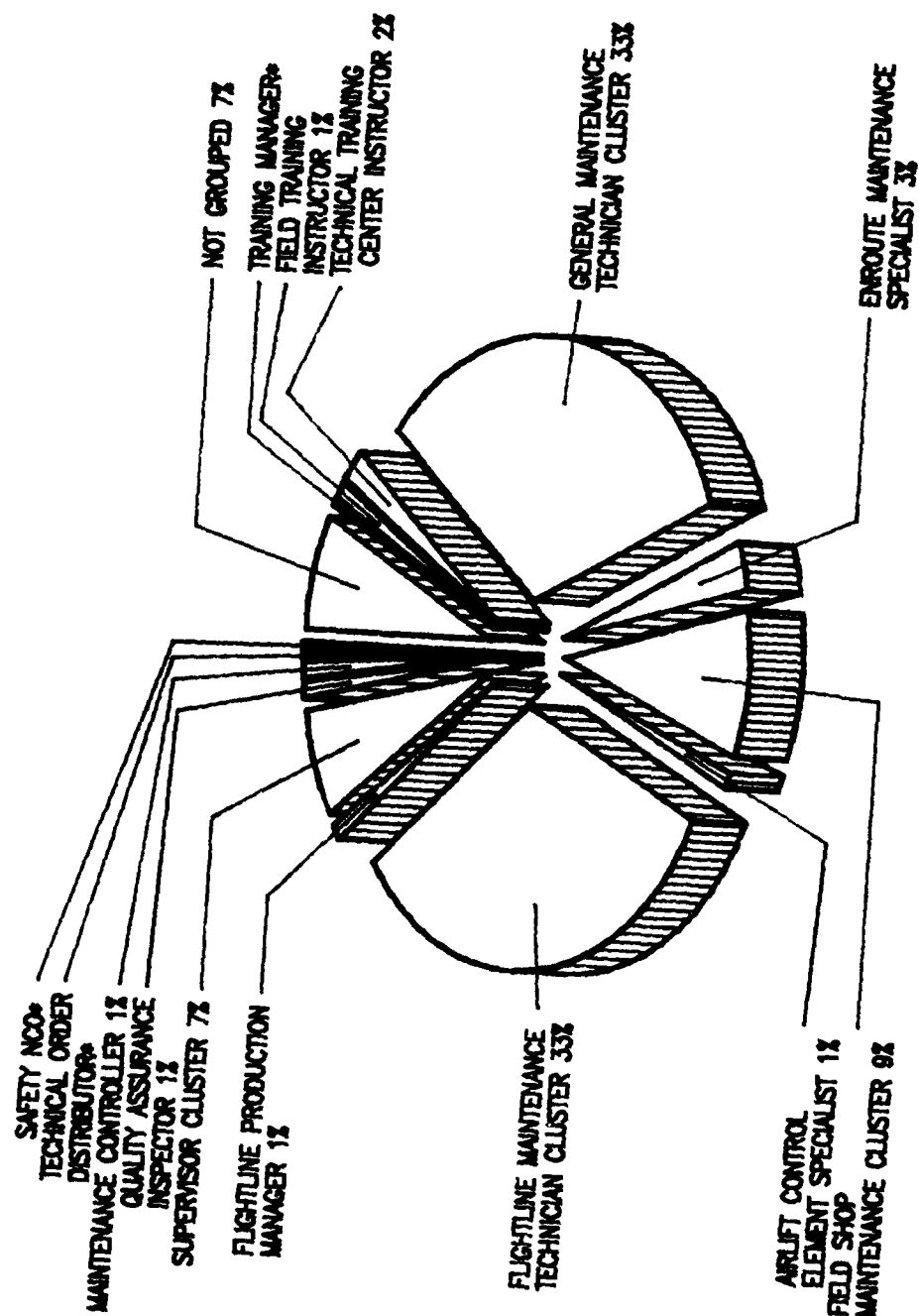
### Avionic Communications (AFSC 328X0)

Survey data for AFSC 328X0 personnel show a career ladder with a number of jobs having diversified responsibilities. Analysis identified four job clusters and 10 independent jobs. Three job clusters and two independent jobs are the technical AFSC-specific jobs, which include the majority of the career ladder population and are responsible for the maintenance of avionic communications equipment. One job cluster and eight independent jobs relate to the training, supervisory, managerial, or administrative functions which have limited technical task performance requirements.

Based on task similarity and relative time spent, the division of jobs performed by AFSC 328X0 personnel is illustrated in Figure 1, and a listing of these jobs is provided below. The stage (STG) number shown beside each title is a reference to computer-printed information. The number of personnel in each group (N) is also shown. All jobs described in this section are part of the Avionic Communications career ladder, and for the sake of brevity, "Avionic Communications" is assumed to be an element of each job title and will not be included in the job titles identified. The technically-oriented jobs are listed first.

- I. FIELD SHOP MAINTENANCE TECHNICIAN CLUSTER (STG124, N=136)
- II. GENERAL MAINTENANCE TECHNICIAN CLUSTER (STG129, N=492)
- III. FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER (STG079, N=490)
- IV. ENROUTE MAINTENANCE SPECIALIST (STG060, N=45)
- V. AIRLIFT CONTROL ELEMENT SPECIALIST (STG062, N=21)
- VI. FIELD TRAINING INSTRUCTOR (STG117, N=11)
- VII. TECHNICAL TRAINING CENTER INSTRUCTOR (STG177, N=24)
- VIII. TRAINING MANAGER (STG160, N=7)
- IX. SUPERVISOR CLUSTER (STG091, N=101)
- X. FLIGHTLINE PRODUCTION MANAGER (STG088, N=11)
- XI. QUALITY ASSURANCE INSPECTOR (STG123, N=13)
- XII. SAFETY NCO (STG094, N=8)
- XIII. MAINTENANCE CONTROLLER (STG053, N=16)
- XIV. TECHNICAL ORDER DISTRIBUTOR (STG168, N=6)

# AVIONIC COMMUNICATIONS JOBS (AFSC 328X0)



\* Less than 1 percent

FIGURE 1



The respondents forming these groups account for 93 percent of the survey sample. The remaining 7 percent were performing tasks or series of tasks which did not group them with any of the defined jobs. Job titles given by respondents which were representative of these personnel included Division Superintendent, Log Management Specialist, Unit Career Advisor, and Mobility NCO.

Table 5 shows the relative time spent in each duty for AFSC 328X0 job groups, while selected background data for the groups are provided in Table 6. Representative tasks performed in each job are contained in Appendix B.

Six tasks, with high percentage of performance, are found in each of the five technical AFSC-specific jobs of this career ladder. These tasks are from the general avionic systems maintenance and the administrative functions duty sections of the survey:

- locate maintenance information in technical publications
- locate part or stock numbers in technical publications
- make entries on AFTO Forms 349 (Maintenance Data Collection Record)
- make entries on AFTO Forms 350 (Reparable Item Processing Tag)
- trace signals through circuits using schematics
- trace signals through circuits using wiring diagrams

The following paragraphs contain brief descriptions of the specific job clusters and independent jobs listed above.

I. FIELD SHOP MAINTENANCE TECHNICIAN CLUSTER (STG124, N=136). This is one of three technical AFSC-specific core jobs. The tasks performed in this job cluster are those associated with field shop maintenance of avionic communications systems. Ninety-five percent of the individuals in this job indicate their place of duty is in the field shop. Maintenance of three systems--ultra high frequency (UHF) radio, high frequency (HF) radio, and Interphone--accounts for 38 percent of the relative time spent in the job. Another 22 percent is devoted to tasks in general avionic systems maintenance and 15 percent performing administrative tasks. Eleven other communications systems take up 15 percent of the relative time spent. Less than 3 percent is spent on field shop maintenance of navigation systems equipment. Although personnel from all commands are found within this job cluster, most personnel are assigned to SAC (62 percent). Of the 118 average tasks performed in this job cluster, the following are representative:

- align avionic systems mockup line replaceable units (LRU)
- align UHF receiver-transmitters
- bench check avionic systems mockup LRU
- bench check UHF receiver-transmitters
- clean components or parts

TABLE 5

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES  
ACROSS AVIONIC COMMUNICATIONS JOB GROUPS  
(AFSC 328X0)

DUTIES														
	FIELD		GEN	FLTLINE		ENROUTE		AIRLIFT		FIELD TNG		TECH TNG		
	SHOP MAINT TECHN	MAINT TECHN		MAINT TECHN	TECHN	MAINT SPECL	CONTROL ELEMENT SPECL	INSTRUCTOR	CEN INSTR					
A ORGANIZING AND PLANNING	1		1	1	1	2	1	2	1	1	1	1		
B DIRECTING AND IMPLEMENTING	2		2	2	1	4	1	4	7	7	9	9		
C INSPECTING AND EVALUATING	2		1	2	2	2	2	2	5	5	3	3		
D TRAINING	3		2	3	3	4	3	4	17	17	63	63		
E PERFORMING ADMINISTRATIVE FUNCTIONS	15		10	12	9	33	9	33	15	15	12	12		
F PERFORMING GENERAL AVIONIC SYSTEMS														
G MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	12		21	24	16	20	16	20	17	17	8	8		
H MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE AND FREQUENCY MODULATED (AM/FM) RADIO SYSTEMS	17		13	11	6	11	6	11	10	10	*	*		
I MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE MODULATED (AM) RADIO SYSTEMS	2		7	3	3	2	3	2	7	7	*	*		
J MAINTAINING VERY HIGH FREQUENCY (VHF) FREQUENCY MODULATED (FM) RADIO SYSTEMS	1		3	2	2	1	2	1	*	*	*	*		
K MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	11		10	7	3	12	3	12	15	15	1	1		
L MAINTAINING INTERPHONE SYSTEMS	9		11	10	6	1	6	1	2	2	*	*		
M MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	*		3	1	1	*	1	*	1	1	*	*		
N MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) AND S-BAND SYSTEMS	2		2	2	1	*	1	*	3	3	*	*		
O MAINTAINING CRASH POSITIONING, EMERGENCY LOCATING, AND UNDERWATER BEACON SYSTEMS	1		5	1	4	*	4	*	*	*	*	*		
P MAINTAINING EMERGENCY RADIOS (ER)	1		1	*	*	*	*	*	*	*	*	*		

\* Denotes less than 1 percent

TABLE 5 (CONTINUED)

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES  
ACROSS AVIONIC COMMUNICATIONS JOB GROUPS  
(AFSC 328X0)

DUTIES	FIELD SHOP		GEN MAINT		FLTLINE MAINT		ENROUTE MAINT		AIRLIFT CONTROL		FIELD TNG		TECH TNG	
	TECHN	MAINT	TECHN	MAINT	TECHN	MAINT	SPECL	ELEMENT	INSTRUCTOR	CEN	INSTR			
Q MAINTAINING SUPER HIGH FREQUENCY (SHF) SATELLITE RECEIVER TIMING SYSTEMS	*		*		*		*		*		*		*	
R MAINTAINING COCKPIT VOICE RECORDER AND SECURE VOICE SYSTEMS	1		2		2		1		3		*		*	
S MAINTAINING AIR FORCE SATELLITE COMMUNICATION (AFSATCOM) SYSTEMS	4		*		3		*		2		*		*	
T MAINTAINING AIRCRAFT INTRUSION DETECTION (AID) AND TOW TEAM WARNING SYSTEMS (TTWS)	3		*		*		*		*		*		*	
U MAINTAINING DATA LINK CONTROL SYSTEMS	*		*		*		*		*		*		*	
V PERFORMING CREW CHIEF CROSS UTILIZATION TRAINING (CUT) DUTIES	*		1		5		32		1		*		*	
W PERFORMING INTERMEDIATE (FIELD SHOP) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	*		3		1		1		*		*		*	
X PERFORMING ORGANIZATIONAL (FLIGHTLINE) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	*		*		8		8		*		*		*	

\* Denotes less than 1 percent

TABLE 5 (CONTINUED)

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES  
ACROSS AVIONIC COMMUNICATIONS JOB GROUPS  
(AFSC 328X0)

DUTIES	TNG MGR	SUPERVISOR	FLIGHTLINE QUALITY			SAFETY NCO	MAINT CONTROLLER	TECH ORDER DISTRIBUTOR
			PRODUCTION MANAGER	INSPECTOR	ASSURANCE			
A ORGANIZING AND PLANNING	9	9	9	7	19	12	1	
B DIRECTING AND IMPLEMENTING	11	14	21	17	22	29	21	
C INSPECTING AND EVALUATING	19	15	19	31	32	4	7	
D TRAINING	43	11	3	5	4	1	4	
E PERFORMING ADMINISTRATIVE FUNCTIONS	17	28	37	33	21	48	58	
F PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	1	8	6	5	1	2	5	
G MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	*	4	*	*	*	*	*	
H MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE AND FREQUENCY MODULATED (AM/FM) RADIO SYSTEMS	*	1	*	*	*	*	*	
I MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE MODULATED (AM) RADIO SYSTEMS	*	*	*	*	*	*	*	
J MAINTAINING VERY HIGH FREQUENCY (VHF) FREQUENCY MODULATED (FM) RADIO SYSTEMS	*	*	*	*	*	*	*	
K MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	*	*	*	*	*	*	*	
L MAINTAINING INTERPHONE SYSTEMS	*	3	*	*	1	4	2	
M MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	*	2	*	*	*	*	*	
N MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) AND S-BAND SYSTEMS	*	*	*	*	*	*	*	
O MAINTAINING CRASH POSITIONING, EMERGENCY LOCATING, AND UNDERWATER BEACON SYSTEMS	*	*	*	*	*	*	*	

\* Denotes less than 1 percent

TABLE 5 (CONTINUED)

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES  
ACROSS AVIONIC COMMUNICATIONS JOB GROUPS  
(AFSC 328X0)

DUTIES	TNG MGR	SUPERVISOR	FLIGHTLINE QUALITY			SAFETY NCO	MAINT CONTROLLER	TECH ORDER DISTRIBUTOR
			PRODUCTION MANAGER	ASSURANCE INSPECTOR				
P MAINTAINING EMERGENCY RADIOS (ER)	*	*	*	*		*	*	*
Q MAINTAINING SUPER HIGH FREQUENCY (SHF) SATELLITE RECEIVER TIMING SYSTEMS	*	*	*	*		*	*	*
R MAINTAINING COCKPIT VOICE RECORDER AND SECURE VOICE SYSTEMS	*	1	*	*		*	*	*
S MAINTAINING AIR FORCE SATELLITE COMMUNICATION (AFSATCOM) SYSTEMS	*	*	*	*		*	*	*
T MAINTAINING AIRCRAFT INTRUSION DETECTION (AID) AND TOW TEAM WARNING SYSTEMS (TTWS)	*	*	*	*		*	*	*
U MAINTAINING DATA LINK CONTROL SYSTEMS	*	*	*	*		*	*	*
V PERFORMING CREW CHIEF CROSS UTILIZATION TRAINING (CUT) DUTIES	*	*	4	*		*	*	*
W PERFORMING INTERMEDIATE (FIELD SHOP) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	*	1	*	*		*	*	*
X PERFORMING ORGANIZATIONAL (FLIGHTLINE) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	*	1	3	*		*	*	*

\* Denotes less than 1 percent

TABLE 6

## SELECTED BACKGROUND DATA FOR MEMBERS OF AFSC 328X0 JOB GROUPS

DUTIES	FIELD SHOP MAINTENANCE TECHNICIAN		GEN MAINT TECHNICIAN		FLTLINE MAINT TECHN		ENROUTE MAINT SPECL		AIRLIFT CONTROL ELEMENT SPECL		FIELD TRAINING INSTRUCTOR		TECHNICAL TRAINING CENTER INSTRUCTOR	
NUMBER IN GROUP	136		492		490		45		21		11		24	
PERCENT OF TOTAL SAMPLE	9%		33%		33%		3%		1%		1%		2%	
PERCENT IN CONUS	81%		80%		76%		27%		58%		82%		92%	
DAFSC DISTRIBUTION														
32830	22%		15%		22%		11%		*		*		*	
32850	52%		55%		55%		62%		67%		9%		58%	
32870	26%		26%		33%		27%		33%		91%		42%	
PAYGRADE DISTRIBUTION														
E-1 TO E-3	39%		39%		39%		20%		*		*		4%	
E-4	23%		24%		19%		29%		29%		*		13%	
E-5	31%		27%		31%		40%		57%		36%		58%	
E-6	6%		9%		12%		11%		5%		46%		25%	
E-7	1%		1%		1%		*		9%		18%		*	
AVERAGE MONTHS IN CAREER FIELD	55		59		65		69		98		135		105	
AVERAGE MONTHS TAFMS	63		68		75		79		107		144		125	
PERCENT FIRST ENLISTMENT	49%		45%		40%		25%		*		*		4%	
PERCENT SUPERVISING	46%		29%		46%		27%		21%		37%		*	
AVERAGE NUMBER OF TASKS PERFORMED	114		195		114		102		63		18		17	

\* Indicates less than 1 percent

TABLE 6 (CONTINUED)

## SELECTED BACKGROUND DATA FOR MEMBERS OF AFSC 328X0 JOB GROUPS

DUTIES	TNG MGR	SUPERVISOR	FLIGHTLINE PRODUCTION MANAGER	QUALITY ASSURANCE INSPECTOR	SAFETY NCO	MAINT CONTROLLER	TECH ORDER DISTRIBUTOR
NUMBER IN GROUP	7	101	11	13	8	16	6
PERCENT OF TOTAL SAMPLE	*	7%	1%	1%	1%	1%	*
PERCENT IN CONUS	86%	76%	82%	69%	63%	88%	50%
DAFSC DISTRIBUTION							
32830	*	*	*	*	*	*	*
32850	*	7%	*	23%	*	19%	67%
32870	100%	93%	100%	77%	100%	21%	33%
PAYGRADE DISTRIBUTION							
E-1 TO E-3	*	*	*	*	*	*	*
E-4	*	3%	*	8%	*	6%	17%
E-5	*	11%	*	15%	*	13%	67%
E-6	29%	37%	18%	39%	63%	13%	16%
E-7	71%	45%	82%	38%	37%	25%	*
E-8	*	4%	*	*	*	*	*
AVERAGE MONTHS IN CAREER FIELD	160	123	194	154	179	106	82
AVERAGE MONTHS TAFMS	198	129	216	159	188	133	124
PERCENT FIRST ENLISTMENT	*	*	*	*	*	*	17%
PERCENT SUPERVISING	100%	92%	82%	44%	37%	25%	33%
AVERAGE NUMBER OF TASKS PERFORMED	39	130	37	36	26	13	15

\* Indicates less than 1 percent

III. FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER (STG079, N=490). This core technical AFSC-specific job cluster consists of seven subgroup jobs performed on the flightline. Ninety percent of the airmen performing this job say their place of duty is the flightline. In addition to 24 percent of the relative time being spent on general avionic systems maintenance and 28 percent on the three major systems (UHF radio, interphone, and HF radio), 10 percent is spent on navigation systems maintenance, and 5 percent on crew chief CUT tasks. Some time, although minimum, is spent on 11 other communication systems tasks. The following tasks reflect the nature of this job cluster.

- isolate malfunctions in UHF systems
- operationally check interphone systems
- preset frequencies in UHF control units
- remove or replace aircraft access plates or panels
- remove or replace interphone control boxes
- remove or replace interphone cords
- remove or replace radio frequency (RF) coaxial connectors
- remove or replace UHF receiver-transmitters
- safety wire avionic system LRU

The seven subgroup jobs of this cluster differ based on the amount of relative time spent on the different systems maintained within the job cluster. There are two jobs where, next to general avionic systems maintenance, most relative time is spent maintaining navigation systems. All of the other major systems are also comparatively high in relative time spent in these jobs.

Members of this job cluster report an average grade of E-4. They average 6 years in the career field and 7 years TAFMS. Thirty-two percent are still in their first enlistment, and 55 percent report holding a 5-skill level DAFSC. All MAJCOMs are represented in this job cluster.

IV. ENROUTE MAINTENANCE SPECIALIST (STG060, N=45). Survey data break this independent job out because of the amount of relative time spent on crew chief CUT tasks, which accounts for 32 percent of the total time. This job entails primarily flightline tasks. Since the organization in which this job is found provides support and service for aircraft passing through the base, only emergency-type maintenance is provided. Members holding this independent job report an average grade of E-4 and a 5-skill level. The following are representative of the 102 average tasks which reflect this job.

- jack up aircraft
- launch aircraft
- perform thru flight inspections
- position aircraft chocks
- position nonpowered or powered aerospace ground equipment (AGE) to aircraft
- recover aircraft



- remove or replace aircraft access plates or panels
- remove or replace interphone control boxes
- remove or replace UHF control units
- remove or replace UHF receiver-transmitters
- walk wings or tails during aircraft towing operations

V. AIRLIFT CONTROL ELEMENT SPECIALIST (STG062, N=21). This job is found in a contingency-type organization, mainly in MAC (81 percent of the incumbents). These airmen are responsible for maintaining the communications equipment the airlift control elements use to set up airfields under contingency conditions. Since the equipment is not used as frequently as in other organizations, a great deal of the relative time of this job is administrative in nature, accounting for 33 percent of the time. The administrative tasks deal with keeping equipment clean and ready for movement. The technical aspects of the job deal with general avionic communication systems maintenance (20 percent) and two major systems used by the element, HF radio (12 percent) and UHF radio (11 percent), to talk from the ground to air. The incumbents of this independent job have an average grade of E-5, with a 5-skill level, and 6 years average time in the service. The following are representative tasks of this job:

- clean components or parts
- fabricate coaxial cables
- identify parts using illustrated parts breakdown (IPB)
- make entries on supply turn in or issue forms, such as DD Forms 1577, AF Forms 2005, or DD Forms 1150
- operate microfiche viewers
- process parts for turn in to supply
- remove or replace RF coaxial connectors
- test continuity of coaxial cables

VI. FIELD TRAINING INSTRUCTOR (STG117, N=11). This independent job is a cross between the technical AFSC-specific type job and the administrative job of training center instructor. This job includes more advanced training of avionic communications maintenance on specific pieces of equipment predicated on the needs of any given base. Tasks in seven communications maintenance duties are performed at a relative time spent of 54 percent. Training tasks account for 17 percent of the jobs relative time and administrative functions; directing, implementing, organizing, and planning take up an additional 21 percent of the relative time spent. This job requires hands-on training which accounts for the performance of technical duties. Most tasks are field shop related; however, there are some flightline tasks trained and reported. The individuals performing this job have an average grade of E-6, 11 years average in the career field, and an average 7-skill level. With an average of 34 tasks being performed, the following are representative tasks done in this job:

- administer tests
- align avionic systems mockup LRU
- bench check UHF receiver-transmitters
- bench check avionic systems mockup LRU
- demonstrate how to locate technical information
- develop training aids
- prepare lesson plans
- trace signals through circuits using schematics
- trace signals through circuits using wiring diagrams

VII. TECHNICAL TRAINING CENTER INSTRUCTOR (STG177, N=24). This training duty accounts for 63 percent of the relative time spent in this independent job, with administrative tasks taking up 12 percent. The job entails training airmen how to maintain avionic communications equipment. The job is accomplished in a structured training environment at the technical training center. Incidental amounts of time are spent on the different systems and pieces of equipment used in the classes. The average grade for the individuals performing this job is E-5, with 58 percent of them holding a 5-skill level. The following are typical of the 21 average tasks performed in the job:

- administer tests
- conduct resident course classroom training
- counsel personnel
- counsel resident course students on training progress
- develop training aids
- prepare lesson plans
- write test questions

VIII. TRAINING MANAGER (STG160, N=7). This independent job provides the management for training programs. It is administrative in nature, with 43 percent of the relative time being spent on the training duty. This is a comparatively senior job, with the incumbents having an average grade of E-7 and a 7-skill level. They average 13 years in the career field and 17 years TAFMS. Of the average 38 tasks performed, the following help identify this independent job:

- schedule work assignments
- direct training programs, other than OJT
- maintain training records
- prepare training schedules
- schedule personnel for training
- orient newly assigned personnel
- write APR
- interpret policies for subordinates

IX. SUPERVISOR CLUSTER (STG091, N=101). This job cluster is the one which provides supervision for this career ladder and has responsibility for organizing, planning, administration, evaluating, inspecting, directing, implementing, and training functions. Seventy-six percent of the relative time of this job is taken up with tasks to satisfy that responsibility. Although supervisory in nature, 8 percent of the relative time is spent on general avionic systems maintenance tasks. The rest of the time is spent on tasks related to the technical aspects of the career ladder. There are five subgroup jobs in this job cluster. Two jobs are shift supervisor jobs which entail more relative time spent on technical AFSC-specific tasks, with a corresponding reduction of the relative time spent on supervisory tasks. They differ in that one job relates to the flightline and the other to the field shop. Another job, Avionic Communications Shop Chief, encompasses the supervisory functions, with limited time spent on technical AFSC-specific tasks. The other two jobs include very little responsibility for technical duties and are identified with the area supervised, as indicated by the incumbents, ALCE Supervisor and Avionic Maintenance Superintendent. This job cluster contains, as a whole, the senior personnel of the career ladder, but the average grade is E-6. Ninety-two percent of the individuals in this job cluster have a 7-skill level. Typical tasks of the 130 average performed include:

- counsel personnel
- evaluate compliance with performance standards
- interpret policies for subordinates
- inspect completed jobs
- locate maintenance information in technical publications
- orient newly assigned personnel
- participate in staff meetings
- write APR
- write correspondence

X. FLIGHTLINE PRODUCTION MANAGER (STG088, N=11). This administrative job entails the management of flightline operations. Thirty-seven percent of the relative time is spent doing administrative tasks, with an additional 39 percent of relative time devoted to the three duties dealing with directing, implementing, evaluating, inspecting, organizing, and planning. The job is narrow in scope with an average of only 37 tasks performed. The average grade is E-7, with a 7-skill level. The title most indicated by the incumbents was Flightline Production. Typical tasks performed in this independent job include:

- determine work priorities
- direct flightline maintenance activities
- inspect completed jobs
- inspect reported discrepancies
- coordinate flightline maintenance activities
- determine repair priorities

perform operator maintenance on vehicles  
perform vehicle inspections using AF Forms 1800  
(Operator's Inspection Guide and Trouble Report)

XI. QUALITY ASSURANCE INSPECTOR (STG123, N=13). This job provides the organization with the ability to inspect and evaluate the adequacy of the maintenance effort. Sixty-four percent of the relative time is spent on tasks in the evaluating and inspecting duty (31 percent) and the administration duty (33 percent). An additional 17 percent of relative time is dedicated to directing and implementing. The job is a rather narrow one, with an average of only 36 tasks performed. The average grade of the incumbents of this job is E-6, with most holding a 7-skill level. The title most frequently provided by individuals in this job was Quality Assurance Inspector. Typical quality assurance tasks performed by these personnel include:

- inspect maintenance activities
- inspect reported discrepancies
- direct quality assurance programs
- write correspondence
- evaluate compliance with performance standards
- investigate events, such as accidents and incidents
- locate maintenance information in technical publications
- prepare AFTO Forms 22 (Technical Order System Publication Improvement Report and Reply)

XII. SAFETY NCO (STG094, N=8). This job is outside of a normal AFSC-related job and is a full-time safety program administrator. The job consists of inspecting and evaluating the safety of the organization (32 percent of relative time), directing and implementing the program (22 percent of relative time), performing the administrative functions associated with the program (21 percent of relative time), and organizing and planning the program (19 percent of relative time). This is a rather narrow job held by senior personnel, all with a 7-skill level and either an E-6 or E-7. Of the average 26 tasks performed by personnel holding this independent job, the following are representative:

- conduct ground safety inspections
- conduct safety lectures
- evaluate safety programs
- implement safety programs
- investigate events, such as accidents and incidents
- plan safety programs
- write correspondence

XIII. MAINTENANCE CONTROLLER (STG053, N=16). The airmen in this job have one which is very narrow in scope. Fifty-three percent of the relative time in this job is taken up with administrative duties. The job consists of

performing the administrative tasks necessary to control avionic communication workflow and ensure proper documentation is accomplished. The majority of incumbents hold the grade of E-5 and average 9 years in the career field and 10 years TAFMS. Average number of tasks performed are 11, and the following are representative:

- assign job control numbers
- coordinate flightline maintenance activities
- determine repair priorities
- determine work priorities
- direct field shop maintenance activities
- direct flightline maintenance activities
- maintain specialist dispatch boards

XIV. TECHNICAL ORDER DISTRIBUTOR (STG168, N=6). This job entails maintaining technical order (TO) files, distributing TO documents, and providing TO library service for the avionic field shop. The average grade for personnel performing this job is E-5, and they are most likely to hold a 5-skill level. Fifty-eight percent of the relative time spent in this job is in the administrative functional duty. The following tasks are the most commonly performed tasks and account for 56 percent of the relative time spent by individuals working in this job:

- direct maintenance of TO files
- establish requirements for publication libraries
- locate maintenance information in technical publications
- locate part or stock numbers in technical publications
- maintain AFTO Forms 110 (Technical Order/CPIN Distribution Record)
- maintain technical publication files
- operate microfiche viewers

#### Summary

Four job clusters and 10 independent jobs were identified in the career ladder structure analysis. The majority of career ladder incumbents (74 percent) grouped into three job clusters (Field Shop Maintenance Technician, General Maintenance Technician, and Flightline Maintenance Technician), and performed the full range of technical AFSC-related maintenance functions. Two smaller independent jobs (Enroute Maintenance Specialist and Airlift Control Element Specialist) are peculiar to and derive their functions from the organizations where they are found. Although these two jobs require the knowledge and skills to maintain avionic communications equipment, very little time is spent in that area. One job cluster (Supervisor), with 7 percent of the survey population, provided the career ladder with supervisory leadership. Three independent jobs were concerned with training, from the management of the programs to the technical school and field training environment. One independent job, Safety NCO, although not truly related to the career ladder, has an

important role in the organization and provides senior airmen with expanding experience. The other five independent jobs were involved with very limited technical functions of the career ladder and were heavily involved with administrative management, administration support, and quality assurance. Specialization within the career ladder was identified as falling into two major areas, on-equipment (flightline) and off-equipment (field shop), with one job having responsibility for both areas and one job for each of the areas. There were three systems which were maintained by all technical AFSC-related jobs. Any diversity in the career ladder is occasioned by the performance of either flightline or field shop maintenance tasks.

#### Avionic Navigation Systems (AFSC 328X1)

Responses from AFSC 328X1 personnel in the survey sample indicate a career ladder with a number of jobs. Analysis identified five job clusters and seven independent jobs. Four job clusters and two independent jobs are technical in nature and AFSC-specific. The other job cluster and five independent jobs are in the training, supervisory, managerial, or administrative areas, with limited technical tasks performed.

Based on task similarity and relative time spent, the division of jobs performed by AFSC 328X1 personnel is illustrated in Figure 2, and a listing of those jobs is provided below. The STG number shown beside each title is a reference to computer-printed information. The number of personnel in each group (N) is also shown. All jobs described in this section are part of the Avionic Navigation Systems career ladder, and for the sake of brevity, "Avionic Navigation Systems" is assumed to be an element of each job title and will not be included in the job titles identified. The technically-oriented jobs are listed first.

- I. GENERAL MAINTENANCE TECHNICIAN CLUSTER (STG138, N=689)
- II. FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER (STG093, N=420)
- III. FIELD SHOP MAINTENANCE APPRENTICE CLUSTER (STG051, N=35)
- IV. FLIGHTLINE MAINTENANCE APPRENTICE CLUSTER (STG080, N=19)
- V. FORWARD-LOOKING RADAR MAINTENANCE SPECIALIST (STG108, N=37)
- VI. MULTI-MODE RADAR MAINTENANCE SPECIALIST (STG477, N=31)
- VII. FIELD TRAINING INSTRUCTOR (STG078, N=25)
- VIII. TECHNICAL TRAINING CENTER INSTRUCTOR (STG055, N=26)
- IX. SUPERVISOR AND MANAGER CLUSTER (STG031, N=149)
- X. QUALITY ASSURANCE INSPECTOR (STG052, N=43)

# AVIONIC NAVIGATION SYSTEMS JOBS (AFSC 328X1)

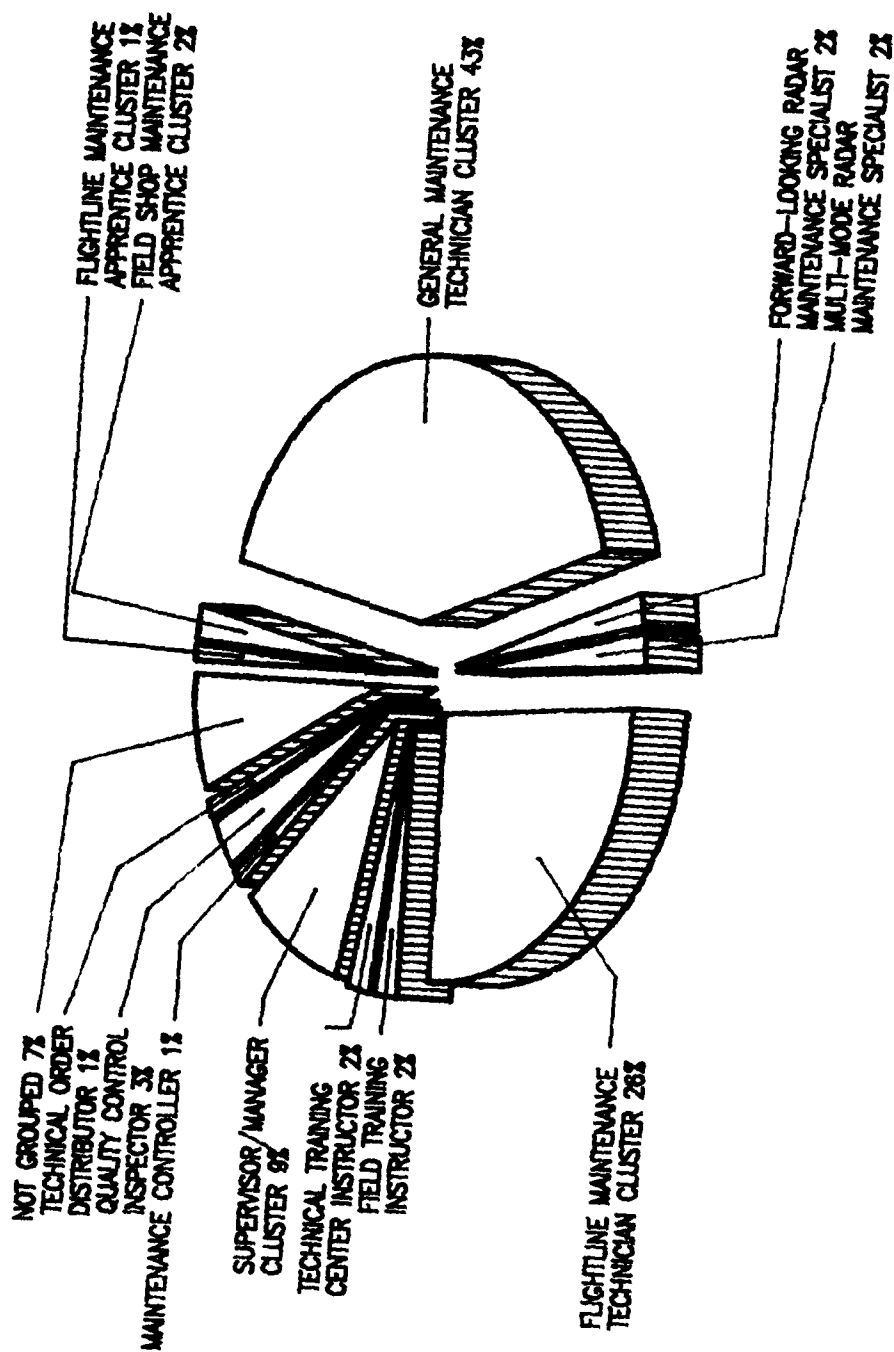


FIGURE 2

XI. MAINTENANCE CONTROLLER (STG069, N=16)

XII. TECHNICAL ORDER DISTRIBUTOR (STG102, N=10)

The respondents forming these groups account for 93 percent of the survey sample. The remaining 7 percent were performing tasks or series of tasks which did not group them with any of the defined jobs. Job titles given by respondents which were representative of these personnel included Targeting Systems Technician, Support Tool Issue Clerk, Deficiency Reporting Manager and Safety NCO.

Table 7 shows the relative time spent in each duty for AFSC 328X1 job groups, while selected background data for the groups are provided in Table 8. Representative tasks performed in each job are contained in Appendix C.

The following are examples of general avionic systems, administrative, or supply tasks performed by a high percentage of personnel across the six technical AFSC-specific jobs of this career ladder.

- identify parts using illustrated parts breakdown (IPB)
- inspect parts received from supply
- locate maintenance information in Air Force TOs
- locate part numbers in technical publications
- make entries on AFTO Forms 349 (Maintenance Data Collection Record)
- make entries on AFTO Forms 350 (Reparable Item Processing Tag)
- safety wire system components
- test and evaluate avionic equipment
- trace circuits using schematics

The following paragraphs contain brief descriptions of the specific job clusters and independent jobs listed above.

I. GENERAL MAINTENANCE TECHNICIAN CLUSTER (STG138, N=689). This is one of two core jobs and is performed by the largest single group of AFSC 328X1 personnel, representing 42 percent of the survey sample. This job has the widest variety of tasks performed, comprising the full range of career ladder functions. Although flightline task performance is a part of this job cluster, the majority of the relative time is spent in performing field shop tasks. Sixty-two percent of the respondents indicate they perform their job on both the flightline and in the field shop, with 28 percent indicating they work only in the field shop. Personnel holding this job report that almost 74 percent of their time is spent maintaining nine navigation systems, with the preponderance of the time on Airborne Identification, Search and Weather Radar, and Tactical Air Navigation Systems. Additionally, 13 percent of their time is taken up with performing general avionics system maintenance and 5 percent with administrative and supply tasks. Maintenance is performed on



TABLE 7

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES  
ACROSS AVIONIC NAVIGATION SYSTEMS JOB GROUPS  
(AFSC 328X1)

DUTIES	GEN MAINT TECHN	FIELD		FLTLINE MAINT	FORWARD- LOOKING RADAR MAINT SPECIALIST	MULTI-MODE RADAR MAINT SPECIALIST
		FLTLINE TECHN	SHOP MAINT			
A ORGANIZING AND PLANNING	1	1	1	*	2	1
B DIRECTING AND IMPLEMENTING	1	1	*	*	1	2
C INSPECTING AND EVALUATING	1	1	1	*	1	1
D TRAINING	1	2	1	1	2	1
E PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	5	7	10	11	7	9
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT) DUTIES	2	9	1	10	2	5
G PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	13	21	20	20	18	22
H MAINTAINING AVIONIC SYSTEM MOCKUPS	5	*	10	1	8	8
I MAINTAINING VARIABLE OMNI RANGE (VOR) SYSTEMS	6	5	6	1	3	3
J MAINTAINING INSTRUMENT LANDING SYSTEMS (ILS)	9	8	6	10	4	3
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	1	2	1	1	*	1
L MAINTAINING RADIO/RADAR ALTIMETERS	5	4	7	*	3	2
M MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	9	10	6	16	6	4
N MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	1	*	*	*	*	1
O MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	5	2	1	1	*	3
P MAINTAINING SEARCH AND WEATHER (SW) RADAR SYSTEMS	13	5	7	*	*	*
Q MAINTAINING MULTI-MODE (MM) RADAR SYSTEMS	1	*	*	*	*	31
R MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	3	1	1	1	*	*
S MAINTAINING FORWARD-LOOKING RADAR (FLR) SYSTEMS	*	2	*	*	31	1
T MAINTAINING AIRBORNE INTERROGATOR SYSTEMS	1	2	8	1	1	*
U MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	15	8	12	14	8	3
V MAINTAINING AVIONIC COMMUNICATION SYSTEMS FUNCTIONS	2	7	1	12	1	*

\* Denotes less than 1 percent

TABLE 7 (CONTINUED)

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES  
ACROSS AVIONIC NAVIGATION SYSTEMS JOB GROUPS  
(AFSC 328X1)

DUTIES	FIELD TNG		TECH TNG		SUPVR MGR	QUALITY ASSURANCE		MAINT CONTROLLER	TECH ORDER DISTRIBUTOR
	TNG INSTR	CEN INSTR	TNG INSTR	CEN INSTR		INSPECTOR	INSPECTOR		
A ORGANIZING AND PLANNING	3	1	18	8	15	11			
B DIRECTING AND IMPLEMENTING	3	13	14	7	20	17			
C INSPECTING AND EVALUATING	3	3	16	24	2	11			
D TRAINING	11	56	10	7	7	7			
E PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	5	8	53	17	14	45			
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT) DUTIES	1	*	2	1	1	*			
G PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	10	7	7	18	*	6			
H MAINTAINING AVIONIC SYSTEM MOCKUPS	8	2	1	5	*	*			
I MAINTAINING VARIABLE OMNI RANGE (VOR) SYSTEMS	1	1	1	1	*	*			
J MAINTAINING INSTRUMENT LANDING SYSTEMS (ILS)	2	*	2	2	*	*			
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	1	*	*	*	*	*			
L MAINTAINING RADIO/RADAR ALTIMETERS	6	*	1	1	*	*			
M MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	7	1	2	2	*	*			
N MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	*	*	*	*	*	*			
O MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	*	*	*	*	*	*			
P MAINTAINING SEARCH AND WEATHER (SW) RADAR SYSTEMS	13	*	1	2	*	*			
Q MAINTAINING MULTI-MODE (MM) RADAR SYSTEMS	3	*	*	*	*	*			
R MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	7	3	1	1	3	1			
S MAINTAINING FORWARD-LOOKING RADAR (FLR) SYSTEMS	*	*	1	*	*	*			
T MAINTAINING AIRBORNE INTERROGATOR SYSTEMS	1	*	*	*	*	*			
U MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	14	4	7	2	*	*			
V MAINTAINING AVIONIC COMMUNICATION SYSTEMS FUNCTIONS	*	*	1	2	*	*			

\* Denotes less than 1 percent

TABLE 8

## SELECTED BACKGROUND DATA FOR MEMBERS OF AFSC 328X1 JOB GROUPS

	GEN MAINT TECHN	FLTLINE MAINT TECHN	FIELD SHOP MAINT APPRENTICE	FLTLINE MAINT APPRENTICE	FORWARD- LOOKING RADAR MAINT SPECIALIST	MULTI-MODE RADAR MAINT SPECIALIST
NUMBER IN GROUP	689	420	35	19	37	31
PERCENT OF TOTAL SAMPLE	43%	26%	2%	1%	2%	2%
PERCENT IN CONUS	79%	67%	63%	84%	65%	23%
DAFSC DISTRIBUTION						
32831	13%	12%	46%	32%	8%	26%
32851	55%	55%	51%	63%	65%	55%
32871	32%	33%	3%	5%	27%	19%
PAYGRADE DISTRIBUTION						
E-1 TO E-3	25%	21%	55%	63%	22%	42%
E-4	26%	27%	31%	16%	30%	22%
E-5	36%	39%	11%	21%	40%	26%
E-6	12%	12%	3%	*	5%	10%
E-7	1%	1%	*	*	3%	*
AVERAGE MONTHS IN CAREER FIELD	67	72	29	32	67	57
AVERAGE MONTHS TAFMS	83	83	46	45	75	66
PERCENT FIRST ENLISTMENT	32%	*	63%	74%	27%	48%
PERCENT SUPERVISING	48%	50%	17%	11%	51%	35%
AVERAGE NUMBER OF TASKS PERFORMED	330	146	99	58	201	187

\* Indicates less than 1 percent

TABLE 8 (CONTINUED)

## SELECTED BACKGROUND DATA FOR MEMBERS OF AFSC 328X1 JOB GROUPS

	FIELD TRAINING INSTR	TECH TRAINING CENTER INSTR	SUPVR MGR	QUALITY ASSURANCE INSPECTOR	MAINTENANCE CONTROLLER	TECHNICAL ORDER DISTRIBUTOR
NUMBER IN GROUP	25	26	149	43	16	10
PERCENT OF TOTAL SAMPLE	2%	2%	9%	3%	1%	1%
PERCENT IN CONUS	88%	100%	69%	72%	88%	90%
DAFSC DISTRIBUTION						
32831	*	4%	1%	*	*	*
32851	16%	58%	10%	19%	31%	20%
32871	84%	38%	89%	81%	69%	80%
PAYGRADE DISTRIBUTION						
E-1 TO E-3	*	*	*	*	*	*
E-4	4%	15%	1%	*	6%	*
E-5	28%	69%	9%	*	6%	*
E-6	40%	12%	40%	37%	63%	40%
E-7	28%	4%	48%	44%	19%	40%
E-8	*	*	2%	19%	6%	20%
AVERAGE MONTHS IN CAREER FIELD	148	95	140	149	112	110
AVERAGE MONTHS TAFMS	157	110	189	156	125	161
PERCENT FIRST ENLISTMENT	*	*	5%	*	*	10%
PERCENT SUPERVISING	32%	4%	91%	30%	12%	40%
AVERAGE NUMBER OF TASKS PERFORMED	132	21	110	52	11	23

\* Indicates less than 1 percent

equipment from all categories of aircraft, but cargo/tanker aircraft equipment is the most common, with 83 percent of the job holders working on it. The average number of tasks performed in this job is 330, with the following tasks distinguishing this job from others of the AFSC:

- align mockup line replaceable units (LRU)
- align VOR receivers
- bench check IFF/AIMS RT units
- bench check SW RT units
- bench check VOR receivers
- inspect avionic equipment for corrosion
- inspect mockups
- trace signals using wiring diagrams

Survey data show there are eight subgroups within this job cluster that differ in the amount of time spent working on the different systems (duties) and the time spent doing tasks within the duties. All of the subgroups require the ability to perform tasks related to field shop maintenance on Search and Weather Radar or Tactical Air Navigation Systems.

Members of this job cluster report an average grade of E-4, with an average of 6 years in the career field and 7 years TAFMS. Twenty-seven percent are still in their first enlistment, and 55 percent report holding a 5-skill level DAFSC.

II. FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER (STG093, N=420). This job is performed by the second largest group of AFSC 328X1 personnel and represents 26 percent of the survey sample. The job entails performance of on-equipment (flightline) tasks on a number of systems. Ninety-four percent of the personnel in this job indicate they perform their job on the flightline, with 4 percent indicating they work on the flightline and in the field shop. Fifty percent of the relative time of cluster members is spent performing tasks on 11 navigation systems, with Tactical Air Navigation Systems the only system taking over 10 percent of the relative time. Twenty-one percent relative time is spent on general avionic systems maintenance, 9 percent on CUT tasks, and 7 percent on communications systems (other AFSC) tasks. Data reflect that 84 percent of the individuals working in this job cluster report they perform CUT tasks and 77 percent work on communications equipment. This job cluster entails maintenance on equipment from all categories of aircraft, with 47 percent of respondents indicating they work on cargo/tanker type aircraft and 21 percent on reconnaissance aircraft. The average number of tasks performed in this job cluster is 146, and the following tasks distinguish this job from others in the AFSC:

- operate AGE, such as power units, heaters, or light carts
- operationally check glideslopes using flightline test equipment (FTE)

- operationally check IFF/AIMS using built-in test equipment (BITE)
- operationally check IFF/AIMS using FTE
- operationally check TACAN systems using BITE
- operationally check TACAN systems using ground stations
- remove or install IFF/AIMS RT units
- remove or install TACAN RT units

Survey data show there are four subgroup jobs within this job cluster, differing only in the time spent on the various systems. All of the jobs, with the exception of one, reflect that the area in which most time is spent is the general avionic systems maintenance duty. The exception is the enroute maintenance job, with 34 individuals, where the single most time consuming duty is the CUT one, taking 32 percent of the time. Even in this job, 15 percent of relative time is spent on general avionic systems maintenance tasks. All of the jobs in this job cluster require knowledge and skills associated with flightline tasks, especially for the Tactical Air Navigation System, with knowledge of the other systems varying with the specific job. Members of this cluster report an average of 6 years in the career field and 7 years TAFMS. The incumbents indicate an average grade of E-4, with 32 percent still in their first-enlistment, and 55 percent reporting they hold a 5-skill level DAFSC.

III. FIELD SHOP MAINTENANCE APPRENTICE CLUSTER (STG051, N=35). This job cluster includes 35 individuals performing a job similar to the General Maintenance Technician cluster, but considerably scaled down, averaging 99 tasks compared to 335. Tasks performed are those done in the field shop. This is supported by data which show 74 percent of the respondents indicate they work in the field shop, with an additional 23 percent reporting they work on both the flightline and in the field shop. Twenty percent of the relative time of this job is spent performing general avionic systems maintenance tasks and 10 percent is spent on the administrative and supply functional tasks. Sixty-five percent of relative time spent takes in 10 systems, with airborne identification systems, avionic system mockups, and airborne interrogator systems the major duty areas worked on. The relative time spent on airborne interrogator systems helps differentiate this job cluster from the general maintenance technician cluster, 8 percent to 1. The following are representative tasks performed by people with this job:

- align mockup LRUs
- bench check IFF/AIMS RT units
- bench check mockup LRU
- inspect avionic equipment for corrosion
- make entries on supply turn-in or issue forms, such as AF Form 2005 or DD Form 1150
- clean avionic equipment
- clean LRUs
- clean shop replaceable units (SRU)
- clean test equipment

The survey data show this job cluster to be made up of four subgroup jobs. They differ by the time members spend maintaining specific systems. Fifty-four percent of the members of this job cluster are in grade E-2 or E-3. The data reflect that respondents average 2 years time in the career field and 4 years TAFMS.

IV. FLIGHTLINE MAINTENANCE APPRENTICE CLUSTER (STG080, N=19). One hundred percent of the personnel in this job cluster report they perform their job on the flightline. This job cluster is similar to the Flightline Maintenance Technician cluster in that the job entails flightline tasks, but they differ because this job cluster has a much narrower scope. The average number of tasks performed is 55, compared to 146 for the other job cluster. Primarily, only three avionic navigation systems are maintained in this job cluster, tactical air navigation, airborne identification and instrument landing systems, taking up 41 percent of the relative job time. Thirty percent of the relative time is spent on general avionic system maintenance and administration and supply functional areas. Additionally, this job cluster includes responsibilities for flightline maintenance of communications equipment and CUT requirements, which account for 22 percent of the relative time. The following tasks are representative of those performed in this job cluster:

- key IFF/AIMS
- make entries on AFTO Forms 781 series (aircraft forms)
- operationally check IFF/AIMS using FTE
- operationally check TACAN indicators
- operationally check TACAN systems using BITE
- remove or install IFF/AIMS KIT computers
- remove or install TACAN RT units
- set up flightline maintenance stands

There are two jobs which make up this cluster, and they differ based on the relative time spent on the seven duties previously mentioned. Members of this job cluster report an average grade of E-3, an average of 3 years in the career field, and 4 years TAFMS.

V. FORWARD-LOOKING RADAR MAINTENANCE SPECIALIST (STG108, N=37). The 37 individuals holding this job report that 31 percent of their relative time is spent maintaining Forward-Looking Radar (FLR) systems. This is the only job which has any significant relative time spent on FLR. The job is predominantly performed in the field shop; however, some flightline tasks are also performed. Sixty-two percent of the personnel working in this job report they work in the field shop, while 30 percent report working both on the flightline and in the field shop. Although seven aircraft categories are worked on, the predominant one is the reconnaissance aircraft, with 81 percent of the job holders working on that type. This job entails spending approximately 34 percent relative time maintaining seven other navigation systems. Additionally, 18 percent of the relative time is spent on general avionic systems maintenance tasks and 7 percent used for administration and supply functions.

The average grade for this job is E-4, with 65 percent of the incumbents holding a 5-skill level. The average number of tasks performed in this job is 201, and the following are typical:

- align FLR antenna receivers
- align FLR computers
- align FLR power supplies
- align FLR transmitters
- bench check FLR antenna receivers
- bench check FLR computers
- bench check FLR control boxes
- bench check FLR power supplies

VI. MULTI-MODE RADAR MAINTENANCE SPECIALIST (STG477, N=31). This job, with 31 incumbents, represents 2 percent of the survey sample. The maintenance of Multi-Mode (MM) Radar systems encompasses 31 percent of the relative time spent in the job. The tasks are done on the flightline and in the field shop, with 87 percent of the airmen in this job reporting working in both areas. Twenty-two percent of the relative time for this job is spent performing general avionic systems maintenance, and another 9 percent is in the administrative and supply areas. Nine of the other navigation systems are worked on to differing degrees, taking up 29 percent of the jobs' relative time. Fifty-four percent of the incumbents indicate they hold a 5-skill level, and the average grade is E-4. The following tasks are typical of the average 187 tasks performed in this job:

- bench check MM computers
- bench check MM indicators
- isolate malfunctions in MM systems
- open radomes
- operate associated systems while checking MM systems
- remove or install MM computer cards
- remove or install MM computers
- remove or install MM indicators
- remove or install MM receiver subassemblies

VII. FIELD TRAINING INSTRUCTOR (STG078, N=25). This independent job is a cross between the technical AFSC-specific type job and the administrative job of training center instructor. Tasks in six navigation systems duties are performed with a relative time spent of 55 percent and 11 percent in the training area. This job requires hands-on training, and thus the reason for the instructor indicating performance of technical duties. Most tasks are field shop related; however, there are some flightline tasks trained and reported. The individuals performing this job are comparatively senior, with an average grade of E-6, 12 years average in the career field, and an average 7-skill level. With 138 average tasks performed, the following are representative of those in this job:



- align mockup LRUs
- align mockup subassemblies
- bench check mockup LRU
- demonstrate how to locate technical information
- identify test equipment malfunctions
- isolate malfunctions to mockup subassemblies
- prepare lesson plans

VIII. TECHNICAL TRAINING CENTER INSTRUCTOR (STG055, N=26). The training duty accounts for 56 percent of the time spent by members of this job. The job entails training airmen how to be avionics navigation systems maintenance personnel. The job is accomplished in a structured training environment. Incidental amounts of time are spent on the different systems and pieces of equipment used in the classes. The average grade for the individuals performing this job is E-5, with 58 percent of them holding a 5-skill level. The following are typical of the 21 average tasks performed in the job:

- administer tests
- conduct resident course classroom training
- counsel personnel on military-related problems
- counsel trainees on training progress
- demonstrate how to locate technical information
- prepare lesson plans
- score tests
- write test questions

IX. SUPERVISOR AND MANAGER CLUSTER (STG031, N=149). This job cluster provides the supervision and management for this career ladder. Seventy-seven percent of the relative time of this cluster is spent on tasks in the organizing, planning, administrative, evaluating, inspecting, directing, implementing, and training functional areas. There are five jobs in this job cluster. One job is the shift supervisor job, which entails more relative time spent on technical AFSC-specific tasks and a corresponding reduction of supervisory tasks. Another job encompasses primarily supervisory functions, with very limited time spent on technical AFSC-specific tasks. The other three jobs are managerial jobs with no responsibility for technical duties. These management jobs are identified with the area managed, resources, mobility, and operations, based on the specific tasks selected by the members. This job cluster contains, as a whole, the senior personnel of the career ladder, but the average grade is E-6. Eighty-nine percent of the individuals in this job cluster have a 7-skill level. Typical tasks of the 110 average performed include:

- counsel personnel on military-related problems
- counsel personnel on personal problems
- determine work priorities
- evaluate compliance with performance standards
- interpret policies for subordinates

schedule work assignments  
write APR  
write evaluation reports

X. QUALITY ASSURANCE INSPECTOR (STG052, N=43). This job is different from the other jobs of the career ladder because of the specialization on tasks pertaining to inspecting and evaluating. Sixty-three percent of the relative time is spent on tasks involved in inspecting, evaluating, organizing, planning, directing, implementing, training, and performing administrative and supply functions. An additional 18 percent of relative time is dedicated to performing general avionic systems maintenance. The job entails a rather narrow one, with only an average of 23 tasks performed. The average grade of the incumbents of this job is E-6, with most having a 7-skill level. The title most frequently provided by individuals in this job was Quality Assurance Inspector. Typical quality assurance tasks performed by these personnel include:

direct quality assurance programs  
evaluate maintenance of equipment  
forward test equipment to test measurement and diagnostic  
equipment (TMDE) laboratory  
inspect AFTO Forms 244 (Industrial/Support Equipment  
Record)  
inspect CTKs  
inspect equipment shock mounts  
inspect mockups  
write evaluation reports

XI. MAINTENANCE CONTROLLER (STG069, N=16). The airmen in this job have one which is very narrow in scope. Fifty-three percent of the relative time in this job is taken up with administrative duties. The job consists of performing the administrative tasks necessary to control avionic navigation workflow and ensure proper documentation is accomplished. The majority of incumbents hold the grade of E-5 and average 9 years in the career field and 10 years TAFMS. Average number of tasks performed in this independent job are 11, and the following are representative:

assign job control numbers  
coordinate flightline maintenance activities with  
workload control sections  
determine work priorities  
direct flightline maintenance activities  
maintain specialist dispatch boards  
maintain status boards

XII. TECHNICAL ORDER DISTRIBUTOR (STG102, N=10). This job entails maintaining TO files, distributing TO documents, and providing TO library service for the avionic field shop. All of the airmen in this job are in grade E-5 and above, and 80 percent of them have a 7-skill level. Forty-five percent of the relative time spent in this job is in the administration and supply duty. The following tasks are the most commonly performed tasks, and account for 44 percent of the relative time spent by the individual working in this job:

- demonstrate how to locate technical information
- direct maintenance of TO files
- locate part numbers in technical publications
- maintain AFTO Forms 110 (Technical Order/CPIN Distribution Record)
- maintain TO files
- prepare requisitions for publications

### Summary

Five job clusters and seven independent jobs were identified in the career ladder structure analysis. The majority of career ladder incumbents (69 percent) grouped into two job clusters (General Maintenance Technician and Flightline Maintenance Specialist), and performed the full range of the technical avionic navigation maintenance functions. Two small job clusters (Shop Maintenance Apprentice and Flightline Maintenance Apprentice) performed much scaled down versions of the two previously mentioned job clusters. Two small technical jobs were very specialized in maintaining Forward-Looking Radar Systems and Multi-Mode Radar Systems. One job cluster (Supervisor and Manager), with 9 percent of the survey population, provided the career ladder with managerial and supervisory leadership. The other five independent jobs were involved with very limited technical functions of the career ladder and were heavily involved with administration, supply, and training. Specialization within the career ladder was identified as falling into two major areas--on-equipment (flightline) and off-equipment (field shop). There also was system specialization as previously mentioned. The career ladder presents a diversified number of jobs, but in the technical core it is based on personnel performing a number of general tasks, and then dividing between flightline and field shop tasks.

### Comparison of Communications and Navigation Systems Jobs

These two AFSCs have very similar jobs which depend heavily on general avionics and electronic principles skills and knowledge. They both have jobs which are centered in two definitive areas of the flightline and the field shop. The field shop jobs are more demanding and less interchangeable, requiring more knowledge for specific systems maintenance. Here is where the greatest need for cross-training will be required. Each AFSC has a number of jobs which are not technically oriented, such as Technical Order Distributor and Maintenance Controller, that can and are filled by members of either AFSC. Although the systems are different and the requirements vary, these two AFSCs

lend themselves to being merged and will continue to have technically oriented jobs that require skills and knowledge of off-equipment maintenance and on-equipment maintenance.

## ANALYSIS OF DAFSC GROUPS

DAFSC analysis identifies similarities and differences in task and duty performance at the various skill levels. This information may be used to evaluate how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the STS, reflect what career ladder personnel are actually doing in the field.

Comparison of the duty and task performance between DAFSC 32830 and 32850 personnel indicated that, while there are some minor differences, the jobs they perform are essentially the same. These two groups have an 82 percent time-spent overlap on common tasks, which supports the premise that they have the same job. The same is true for personnel holding DAFSC 32831 and 32851, with their time-spent overlap at 85 percent. Therefore, the 3- and 5-skill levels for each AFSC will be discussed as combined groups in this report. Survey data, if desired, will also be available for each separate skill level.

The distribution of skill-level personnel across major specialty jobs is reflected in Tables 9 (AFSCs 32830/50 and 32870) and 12 (AFSCs 32831/51 and 32871). Tables 10 (AFSC 328X0) and 13 (AFSC 328X1) show the relative time spent on each duty for each skill-level group. Task comparison is provided in Tables 11 (AFSC 328X0) and 14 (AFSC 328X1) for each of the skill levels.

Avionic Communications (AFSC 328X0). The AFSC 328X0 career ladder shows a very typical career progression pattern as one advances from skill level to skill level. As reflected in Table 10, personnel in the 3- and 5-skill levels are spending the majority of their job time in AFSC-related technical duties (Duties F, G, H, I, J, K, L, M, Q, R, and S), which represents 73 percent of their relative time. At the 7-skill level, these same technical areas account for 44 percent of their relative time. Even with this rather large difference in percent time spent on technical tasks, there is still a 68 percent overlap on common tasks between the two groups. The overlap between the two groups shows the technical orientation of the AFSC overall, while the clear shift in relative time spent on the performance of supervisory and managerial duties (Duties A, B, and C) at the 7-skill level reflects a logical and typical career progression for the career ladder. Table 11 provides a different perspective by displaying representative tasks for each group and showing differences in relative time spent between them. Although the tasks shown reflect a difference in the percent members performing in each category, 7-skill level percent performing technical tasks is still quite high. These data indicate that 7-skill level personnel continue to perform technical tasks in their jobs in addition to supervising, and supports the concept that the career ladder is a technically oriented one which provides for logical progression.

Avionic Navigation Systems (AFSC 328X1). The AFSC 328X1 career ladder reflects a very typical career progression pattern. Table 11 shows that personnel in the 3- and 5-skill levels spend the majority of their job time in AFSC-related technical duties (Duties G, H, I, J, K, L, M, Q, R, S, T, and U), representing 77 percent of their relative time. These technical duty areas account for 54 percent of the relative time spent by 7-skill level personnel. This difference in percent time spent on technical duties, although comparatively great, does not offset the fact that the two groups have a 72 percent overlap of relative time spent on common tasks. The overlap between the two groups shows the technical nature of the AFSC. The shift in relative time spent on the performance of supervisory and managerial duties (Duties A, B, and C) at the 7-skill level is clear and shows a logical career progression for the career ladder. Table 14 provides a different look at the differences by displaying representative tasks for each group and showing the difference in relative time spent between them. Although the tasks reflect a difference in the percent members performing in each category, 7-skill level percent performing for technical tasks is quite high. These data indicate that 7-skill level personnel perform technical tasks in their jobs in addition to supervisory tasks, and confirm the premise that the career ladder is technical in nature and progresses in a logical manner.

#### Skill-Level Descriptions

DAFSC 32830/50. The 926 airmen in the 3- and 5-skill level group (representing 61 percent of the survey sample) performed an average of 132 tasks, with 50 percent of their time spent on 91 tasks. Performing a highly technical job, 73 percent of their relative duty time is devoted to performing technical AFSC-related duties, with an additional 12 percent of their time spent on administrative tasks. Only 5 percent of their time is spent performing tasks associated with avionic navigation systems maintenance. As seen in Table 9, 86 percent of these individuals are in the Field Shop, General, or Flightline Maintenance Technician jobs, the technical core jobs of the AFSC. Table 11 displays selected tasks representative of those performed by a majority of these airmen (see highlighted column, upper half of table) and compared with responses provided by 7-skill level personnel. The arrangement of this table provides an easy method of comparing the commonality and differences between the two groups. As can be quickly ascertained, tasks common to 3- and 5-skill level personnel are also performed by fairly high percentages of the 7-skill level members.

DAFSC 32870. Seven-skill level personnel (39 percent of the survey sample) performed an average of 126 tasks, with 101 tasks taking up over 50 percent of their relative time. Seventy-four percent of 7-skill level personnel report supervising one or more individuals, with 49 percent of their relative time being spent on tasks in the usual supervisory, managerial, training, and administrative duties (see Table 10). Only 16 percent of the 579 people forming this group are found in the Supervisor Cluster, while 56 percent of them are in the three technical core jobs of the career ladder. The highlighted portion of Table 11 clearly shows that senior personnel are responsible for supervision, while the upper portion of the table reflects the wide range of technical tasks a high percentage of these individuals also perform.

TABLE 9  
DISTRIBUTION OF DAFSC 328X0 MEMBERS ACROSS SPECIALITY JOBS

<u>SPECIALTY JOBS</u>	<u>DAFSC 32830/50</u> <u>(N=926)</u>		<u>DAFSC 32870</u> <u>(N=579)</u>	
	<u>NUMBER</u>	<u>PERCENT</u>	<u>NUMBER</u>	<u>PERCENT</u>
I. FIELD SHOP MAINTENANCE TECHNICIAN CLUSTER	101	11%	35	6%
II. GENERAL MAINTENANCE TECHNICIAN CLUSTER	366	40%	126	22%
III. FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER	329	35%	161	28%
IV. ENROUTE MAINTENANCE SPECIALIST	33	4%	12	2%
V. AIRLIFT CONTROL ELEMENT SPECIALIST	14	2%	7	1%
VI. FIELD TRAINING INSTRUCTOR	1	*	10	2%
VII. TECHNICAL TRAINING CENTER INSTRUCTOR	14	2%	10	2%
VIII. TRAINING MANAGER	0	*	7	1%
IX. SUPERVISOR CLUSTER	7	1%	93	16%
X. FLIGHTLINE PRODUCTION MANAGER	0	*	11	2%
XI. QUALITY ASSURANCE INSPECTOR	3	*	10	2%
XII. SAFETY NCO	0	*	8	1%
XIII. MAINTENANCE CONTROLLER	3	*	13	2%
XIV. TECHNICAL ORDER DISTRIBUTOR	4	*	2	*
NOT GROUPED	51	<u>5%</u> 100%	74	<u>13%</u> 100%

\* Indicates less than 1 percent

TABLE 10  
AVERAGE PERCENT TIME SPENT  
PERFORMING DUTIES BY DAFSC 328X0 GROUPS

DUTIES	DAFSC 32830/32850 (N=926)	DAFSC 32870 (N=579)
A ORGANIZING AND PLANNING	1	4
B DIRECTING AND IMPLEMENTING	2	8
C INSPECTING AND EVALUATING	1	9
D TRAINING	3	8
E PERFORMING ADMINISTRATIVE FUNCTIONS	12	20
F PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	22	15
G MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	13	7
H MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE AND FREQUENCY MODULATED (AM/FM) RADIO SYSTEMS	4	3
I MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE MODULATED (AM) RADIO SYSTEMS	2	1
J MAINTAINING VERY HIGH FREQUENCY (VHF) FREQUENCY MODULATED (FM) RADIO SYSTEMS	2	1
K MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	9	5
L MAINTAINING INTERPHONE SYSTEMS	10	6
M MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	2	1
N MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) AND S-BAND SYSTEMS	2	1
O MAINTAINING CRASH POSITIONING, EMERGENCY LOCATING, AND UNDERWATER BEACON SYSTEMS	3	2
P MAINTAINING EMERGENCY RADIOS (ER)	*	*
Q MAINTAINING SUPER HIGH FREQUENCY (SHF) SATELLITE RECEIVER TIMING SYSTEMS	*	*
R MAINTAINING COCKPIT VOICE RECORDER AND SECURE VOICE SYSTEMS	2	1
S MAINTAINING AIR FORCE SATELLITE COMMUNICATION (AFSATCOM) SYSTEMS	2	1
T MAINTAINING AIRCRAFT INTRUSION DETECTION (AID) AND TOW TEAM WARNING SYSTEMS (TTWS)	*	*
U MAINTAINING DATA LINK CONTROL SYSTEMS	*	*
V PERFORMING CREW CHIEF CROSS UTILIZATION TRAINING (CUT) DUTIES	3	2
W PERFORMING INTERMEDIATE (FIELD SHOP) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	1	1
X PERFORMING ORGANIZATIONAL (FLIGHTLINE) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	4	3

\* Denotes less than 1 percent

TABLE 11

DISPLAY OF REPRESENTATIVE TASKS FOR  
AND DIFFERENCES BETWEEN DAFSC 328X0 GROUPS  
(PERCENT MEMBERS PERFORMING)

TASKS	32830/32850 (N=926)	32870 (N=579)
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	84	67
E138 MAKE ENTRIES ON AFTO FORMS 350 (REPAIRABLE ITEM PROCESSING TAG)	84	67
F201 SOLDER AVIONIC SYSTEM WIRING	84	61
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	83	63
0236 PRESET FREQUENCIES IN UHF CONTROL UNITS	82	60
F203 TEST CONTINUITY OF COAXIAL CABLES	82	64
F202 SPLICE AVIONIC SYSTEM WIRING	81	59
G232 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	80	58
F199 SAFETY WIRE AVIONIC SYSTEM LRU	80	56
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	79	61
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	78	56
0404 OPERATIONALLY CHECK INTERPHONE SYSTEMS	77	57
*****		
C65 WRITE APR	25	78
0115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	71	73
B18 COUNSEL PERSONNEL	21	72
C58 INSPECT COMPLETED JOBS	28	71
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	35	67
D71 CONDUCT OJT	38	66
E143 ORIENT NEWLY ASSIGNED PERSONNEL	36	66
A4 DETERMINE WORK PRIORITIES	24	64
D89 MAINTAIN TRAINING RECORDS	23	60
D76 COUNSEL OJT TRAINEES ON PROGRESS	24	59



DAFSC 32831/51. The 959 airmen in the 3- and 5-skill level group (representing 60 percent of the survey sample) performed an average of 219 tasks, with 50 percent of their time spent on 158 tasks. Performing a highly technical job, 79 percent of their relative duty time is devoted to performing technical AFSC-related duties, with an additional 7 percent of their time spent on administrative and supply tasks. Only 3 percent of their time is spent performing tasks associated with avionic communications maintenance. As seen in Table 12, 84 percent of these individuals perform in the technical core jobs of Field Shop Maintenance Apprentice, General Maintenance Technician, Flightline Maintenance Technician, or Flightline Maintenance Apprentice jobs. Table 14 displays selected tasks representative of those performed by a majority of these airmen (see highlighted column upper half of table) which are compared with responses provided by 7-skill level personnel. This table provides an easy method of comparing the commonality and differences between the two groups. As can be quickly ascertained, tasks common to 3- and 5-skill level personnel are also performed by fairly high percentages of the 7-skill level members.

DAFSC 32871. Seven-skill level personnel (40 percent of the survey sample) perform an average of 196 tasks, with 157 tasks taking up over 50 percent of their relative time. Seventy-three percent of 7-skill level personnel report supervising one or more individuals, but only 38 percent of their relative time is spent on tasks in the usual supervisory, managerial, training, and administrative duties (see Table 13). This relatively low supervisory activity is also highlighted by the fact that only 20 percent of the 650 people forming this group are found in the Supervisor Cluster. Table 12 shows that 55 percent of these people are in the technically-oriented jobs found in the General Maintenance Technician and Flightline Maintenance Technician clusters. The highlighted portion of Table 14 shows that senior personnel are responsible for supervision, while the upper portion of the table reflects the wide range of technical tasks a high percentage of these individuals also perform.

#### Summary

Career ladder progression is evident for both AFSCs, with personnel at the 3- and 5-skill levels spending the vast majority of their job time performing technical tasks. At the 7-skill level, although members spend a great deal of their time in technical areas, the shift to supervisory functions is still quite clear.

#### ANALYSIS OF AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data were compared to the AFR 39-1 Specialty Descriptions for Communication and Navigation Systems Specialists and Technicians, both dated 15 September 1988, and effective 31 October 1988. The description for the 3- and 5-skill levels is accurate in describing the overall job performed, in general terms, by the combination of the two surveyed populations. The

TABLE 12  
DISTRIBUTION OF DAFSC 328X1 MEMBERS ACROSS SPECIALITY JOBS

SPECIALTY JOBS	DAFSC 32831/51 (N=959)		DAFSC 32871 (N=650)	
	NUMBER	PERCENT	NUMBER	PERCENT
I. GENERAL MAINTENANCE TECHNICIAN CLUSTER	470	49%	219	34%
II. FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER	284	30%	136	21%
III. FIELD SHOP MAINTENANCE APPRENTICE CLUSTER	34	3%	1	*
IV. FLIGHTLINE MAINTENANCE APPRENTICE CLUSTER	18	2%	1	*
V. FORWARD-LOOKING RADAR MAINTENANCE SPECIALIST	27	3%	10	2%
VI. MULTI-MODE RADAR MAINTENANCE SPECIALIST	25	3%	6	1%
VII. FIELD TRAINING INSTRUCTOR	4	*	21	3%
VIII. TECHNICAL TRAINING CENTER INSTRUCTOR	16	2%	10	2%
IX. SUPERVISOR AND MANAGER CLUSTER	16	2%	133	20%
X. QUALITY ASSURANCE INSPECTOR	8	1%	35	5%
XI. MAINTENANCE CONTROLLER	5	*	11	2%
XII. TECHNICAL ORDER DISTRIBUTOR	2	*	8	1%
NOT GROUPED	50	<u>5%</u> 100%	59	<u>9%</u> 100%

\* Denotes less than .5 percent

TABLE 13  
AVERAGE PERCENT TIME SPENT  
PERFORMING DUTIES BY DAFSC 328X1 GROUPS

DUTIES	DAFSC 32831/32851 (N=959)	DAFSC 32871 (N=650)
A ORGANIZING AND PLANNING	1	7
B DIRECTING AND IMPLEMENTING	1	6
C INSPECTING AND EVALUATING	1	7
D TRAINING	2	6
E PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	7	12
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT) DUTIES	4	4
G PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	17	13
H MAINTAINING AVIONIC SYSTEM MOCKUPS	4	3
I MAINTAINING VARIABLE OMNI RANGE (VOR) SYSTEMS	5	4
J MAINTAINING INSTRUMENT LANDING SYSTEMS (ILS)	8	5
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	1	1
L MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	5	3
M MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	9	6
N MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	*	*
O MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	3	2
P MAINTAINING SEARCH AND WEATHER (SW) RADAR SYSTEMS	8	6
Q MAINTAINING MULTI-MODE (MM) RADAR SYSTEMS	1	1
R MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	2	2
S MAINTAINING FORWARD-LOOKING RADAR (FLR) SYSTEMS	2	1
T MAINTAINING AIRBORNE INTERROGATOR SYSTEMS	1	1
U MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	11	8
V MAINTAINING AVIONIC COMMUNICATION SYSTEMS FUNCTIONS	3	3

\* Denotes less than 1 percent.

TABLE 14

DISPLAY OF REPRESENTATIVE TASKS FOR  
AND DIFFERENCES BETWEEN DAFSC 328X1 GROUPS  
(PERCENT MEMBERS PERFORMING)

TASKS	32831/32851 (N=959)	32871 (N=650)
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	85	65
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	85	66
G250 SAFETY WIRE SYSTEM COMPONENTS	84	60
G260 TRACE SIGNALS USING WIRING DIAGRAMS	82	64
G259 TRACE CIRCUITS USING SCHEMATICS	81	62
G219 INSPECT PARTS RECEIVED FROM SUPPLY	80	64
G227 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS WIRING	79	59
G223 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING CABLES	78	61
G258 TEST CONTINUITY OF AVIONIC SYSTEM WIRING	78	61
G222 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS COAXIAL CABLES	77	60
G226 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS COAXIAL CABLES	77	59
M483 REMOVE OR INSTALL TACAN RT UNITS	76	55
J324 OPERATIONALLY CHECK GLIDESLOPES USING FLIGHTLINE TEST EQUIPMENT (FTE)	73	54
M461 REMOVE OR INSTALL TACAN CONTROL BOXES	73	53
I302 REMOVE OR INSTALL VOR RECEIVERS	73	51
U971 REMOVE OR INSTALL IFF/AIMS RT UNITS	72	50
U951 REMOVE OR INSTALL IFF/AIMS CONTROL BOXES	70	51
*****		
C72 WRITE APR	32	75
D81 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	42	67
D77 CONDUCT OJT	42	64
B27 COUNSEL PERSONNEL ON MILITARY-RELATED PROBLEMS	26	64
D80 COUNSEL TRAINEES ON TRAINING PROGRESS	26	64
B28 COUNSEL PERSONNEL ON PERSONAL PROBLEMS	24	63
A6 DETERMINE WORK PRIORITIES	21	63
A23 WRITE EVALUATION REPORTS	21	59
B45 INTERPRET POLICIES FOR SUBORDINATES	16	53
A22 SCHEDULE WORK ASSIGNMENTS	13	52

Communication and Navigation Systems Technician description accurately reflects, in general terms, the technical aspects of the 7-skill level job performed by the population of the combined surveys.

## TRAINING ANALYSIS

Occupational survey data are one of the many sources of information that can be used to assist in the development of a training program which is relevant to the needs of personnel in their first enlistment. Factors which may be used in evaluating training include the overall description of the job being performed by first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 month TAFMS) or first-enlistment (1-48 months TAFMS) members performing specific tasks or using certain equipment or materials, as well as TE and TD ratings (previously explained in the SURVEY METHODOLOGY section).

To assist specifically in the evaluation of the Specialty Training Standards (STS) and the Plans of Instruction (POI), technical school personnel from Keesler Technical Training Center matched job inventory tasks from each of the task inventories to the appropriate sections and subsections of the pertinent STS and POI. Avionic Communication and Navigation Systems STS 455X2A, 455X2B, and 455X2C, dated October 1988, were used in this process. Avionic Communication and Navigation Systems POI E3ABR45532A-000, E3ABR45532A-001, E3ABR45532B-000, and E3ABR45532C-000, dated 20 May 1988, were used in the match. It was this matching upon which comparison to those documents was based. Each STS and POI match was compared to data of the major command (MAC, SAC, or TAF) from the communication and navigation systems survey that pertained to it. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS and POI matchings, has been forwarded to the technical school for their use in further detailed reviews of training documents. A summary of this information is presented below.

### First-Enlistment Personnel

Since the requirements of first-enlistment personnel form the basis for initial training and the first formal training program in this career ladder, data on this category from both surveys were reviewed. The jobs performed by these personnel are very technically oriented and cover the gamut of both communication and navigation systems technical activities. The data from each survey will be discussed separately.

Avionic Communications (AFSC 328X0). There were 522 DAFSC 328X0 members in their first enlistment (1-48 months TAFMS), representing 35 percent of the survey sample. As reflected in Table 15, approximately 89 percent of the duty time of AFSC 328X0 first-enlistment personnel is devoted to technical task performance. Distribution of these personnel across the career ladder jobs is displayed in Figure 3, which shows 43 percent of the respondents working in

TABLE 15  
RELATIVE TIME SPENT ON DUTIES  
BY FIRST-ENLISTMENT AFSC 328X0 PERSONNEL  
(1-48 MONTHS TAFMS)

DUTIES	PERCENT TIME SPENT (N=522)
A ORGANIZING AND PLANNING	*
B DIRECTING AND IMPLEMENTING	*
C INSPECTING AND EVALUATING	1
D TRAINING	1
E PERFORMING ADMINISTRATIVE FUNCTIONS	10
F PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	24
G MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	15
H MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE AND FREQUENCY MODULATED (AM/FM) RADIO SYSTEMS	5
I MAINTAINING VERY HIGH FREQUENCY (VHF) AMPLITUDE MODULATED (AM) RADIO SYSTEMS	2
J MAINTAINING VERY HIGH FREQUENCY (VHF) FREQUENCY MODULATED (FM) RADIO SYSTEMS	2
K MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	9
L MAINTAINING INTERPHONE SYSTEMS	12
M MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	2
N MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) AND S-BAND SYSTEMS	2
O MAINTAINING CRASH POSITIONING, EMERGENCY LOCATING, AND UNDERWATER BEACON SYSTEMS	3
P MAINTAINING EMERGENCY RADIOS (ER)	*
Q MAINTAINING SUPER HIGH FREQUENCY (SHF) SATELLITE RECEIVER TIMING SYSTEMS	*
R MAINTAINING COCKPIT VOICE RECORDER AND SECURE VOICE SYSTEMS	2
S MAINTAINING AIR FORCE SATELLITE COMMUNICATION (AFSATCOM) SYSTEMS	2
T MAINTAINING AIRCRAFT INTRUSION DETECTION (AID) AND TOW TEAM WARNING SYSTEMS (TTWS)	1
U MAINTAINING DATA LINK CONTROL SYSTEMS	*
V PERFORMING CREW CHIEF CROSS UTILIZATION TRAINING (CUT) DUTIES	3
W PERFORMING INTERMEDIATE (FIELD SHOP) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	1
X PERFORMING ORGANIZATIONAL (FLIGHTLINE) AVIONIC NAVIGATION MAINTENANCE CROSS UTILIZATION FUNCTIONS	4

\* Denotes less than 1 percent

FIRST-ENLISTMENT  
 AVIONIC COMMUNICATIONS (AFSC 328X0) PERSONNEL  
 IN SPECIALTY JOBS  
 (N=522)

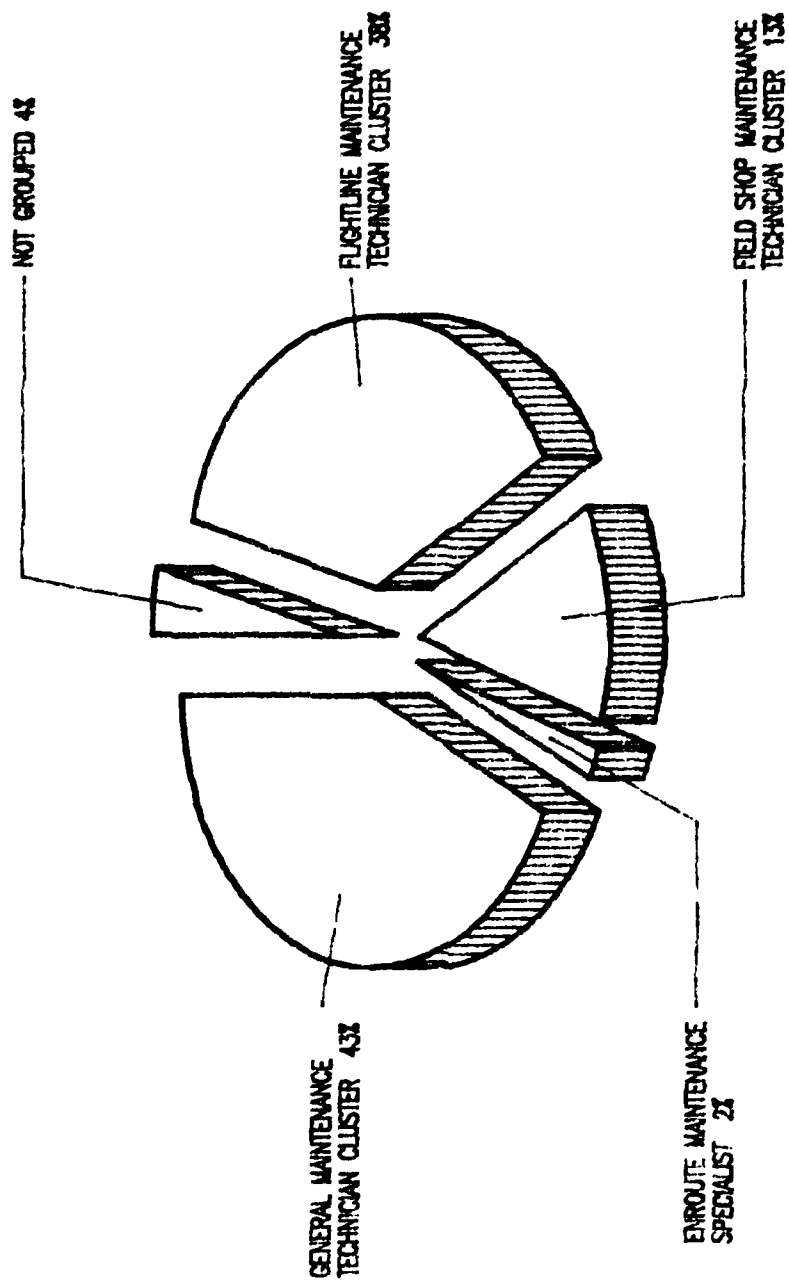


FIGURE 3

the General Maintenance Technician cluster, 38 percent in the Flightline Maintenance Technician cluster, and 13 percent in the Field Shop Maintenance cluster, for a total of 94 percent of the survey sample in the core technical jobs of the AFSC. Table 16 shows representative tasks performed by first-enlistment AFSC 328X0 personnel.

One of the objectives of this survey project was to gather data for the technical training center pertaining to test equipment used by personnel in the field and the avionic communications equipment maintained by them. Tables 17 and 18 present percentages of first-term airmen responding to questions concerning their using or maintaining these items. This type of information is useful to both the technical school and MAJCOM training personnel, to assist them in focusing limited training time or other resources on the most appropriate types of test equipment, and avionic communications equipment required by the new career ladder. This should be of specific value in determining and supporting cross training requirements for navigation personnel in the communications field.

Avionic Navigation Systems (AFSC 328X1). There were 416 DAFSC 328X1 members in their first enlistment, representing 26 percent of that survey sample. As shown in Table 19, approximately 94 percent of their duty time is devoted to technical task performance. Distribution of these personnel across the career ladder jobs is displayed in Figure 4, which shows 53 percent of the respondents working in the General Maintenance Technician cluster, 27 percent in the Flightline Maintenance Technician cluster, 5 percent in the Field Shop Maintenance Apprentice cluster, and 4 percent in the Flightline Maintenance Apprentice cluster, for a total of 89 percent of the survey sample holding AFSC core technical jobs. Table 20 shows representative tasks performed by first-enlistment AFSC 328X1 personnel.

A survey project objective was to gather data on test equipment used and avionic navigation systems equipment maintained by personnel in the career ladder. Percentages of first-term airmen responding positively to questions in these areas are found at Tables 21 and 22. These data should be valuable in selecting the most likely test equipment and navigation systems equipment on which to place emphasis when cross training communications personnel.

#### Training Emphasis and Task Difficulty Data

Tasks having the highest training emphasis (TE) ratings are listed in Tables 23 (AFSC 328X0) and 24 (AFSC 328X1). Included for each task are also the percentage of first-enlistment personnel performing and the task difficulty (TD) rating. The tasks listed in Table 23 show that 12 fall in the general electronic principle-type tasks, four deal with the administrative requirements of the career ladder, and only eight are technical tasks dealing with specific communications systems. Table 24 reflects even a greater number of general tasks (15) and administrative tasks (7) than found in the previous table, with only four technical AFSC tasks listed. The tasks listed should not be considered as all inclusive or the only ones to be reviewed.



TABLE 16  
 REPRESENTATIVE TASKS PERFORMED  
 BY AFSC 328X0 FIRST-ENLISTMENT PERSONNEL  
 (1-48 MONTHS TAFMS)

TASKS	PERCENT MEMBERS PERFORMING (N=522)
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	88
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	88
E143 ORIENT NEWLY ASSIGNED PERSONNEL	88
F201 SOLDER AVIONIC SYSTEM WIRING	87
G236 PRESET FREQUENCIES IN UHF CONTROL UNITS	85
F199 SAFETY WIRE AVIONIC SYSTEM LRU	85
G232 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	84
F203 TEST CONTINUITY OF COAXIAL CABLES CONNECTORS	84
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL	83
L404 OPERATIONALLY CHECK INTERPHONE SYSTEMS	81
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	81
G252 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	81
F202 SPLICE AVIONIC SYSTEM WIRING	81
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	81
F209 VISUALLY INSPECT AIRCRAFT COMMUNICATIONS SYSTEMS	80
F187 REMOVE OR REPLACE AVIONIC SYSTEM COAXIAL CABLES	78
G239 REMOVE OR REPLACE UHF ANTENNAS	78
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	77
F167 FABRICATE COAXIAL CABLES	76
F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	76
F164 CLEAN COMPONENTS OR PARTS	75
F172 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS CABLES	75
L398 ISOLATE MALFUNCTIONS IN INTERPHONE CORDS	74
G233 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING UHF SYSTEMS	72

TABLE 17

TEST EQUIPMENT USED BY 30 PERCENT OR  
MORE OF FIRST ENLISTMENT AFSC 328X0 PERSONNEL  
(1-48 MONTHS TAFMS)

<u>TEST EQUIPMENT USED</u>	<u>PERCENT MEMBERS RESPONDING (N=522)</u>
DIGITAL MULTIMETERS	91
THRULINE WATTMETERS	89
WATTMETERS	78
DIGITAL VOLTMETERS	75
POWER METERS	75
DUMMY LOADS	74
ANALOG MULTIMETERS	68
OSCILLATORS	67
RF SIGNAL GENERATORS	67
ALTENUATERS	63
AUDIO OSCILLATORS	63
FREQUENCY COUNTERS	63
POWER SUPPLIES	59
ANALOG VOLTMETERS	57
DISTORTION ANALYZERS	57
AUDIO METERS	56
AMMETERS	54
MODULATION/DEVIATION METERS	51
VACUUM TUBE VOLTMETERS	48
CABLE TESTERS	45
TIME DOMAIN REFLECTOMETERS	43

TABLE 18

AVIONIC COMMUNICATIONS EQUIPMENT MAINTAINED BY  
30 PERCENT OR MORE OF FIRST ENLISTMENT AFSC 328X0 PERSONNEL  
(1-48 MONTHS TAFMS)

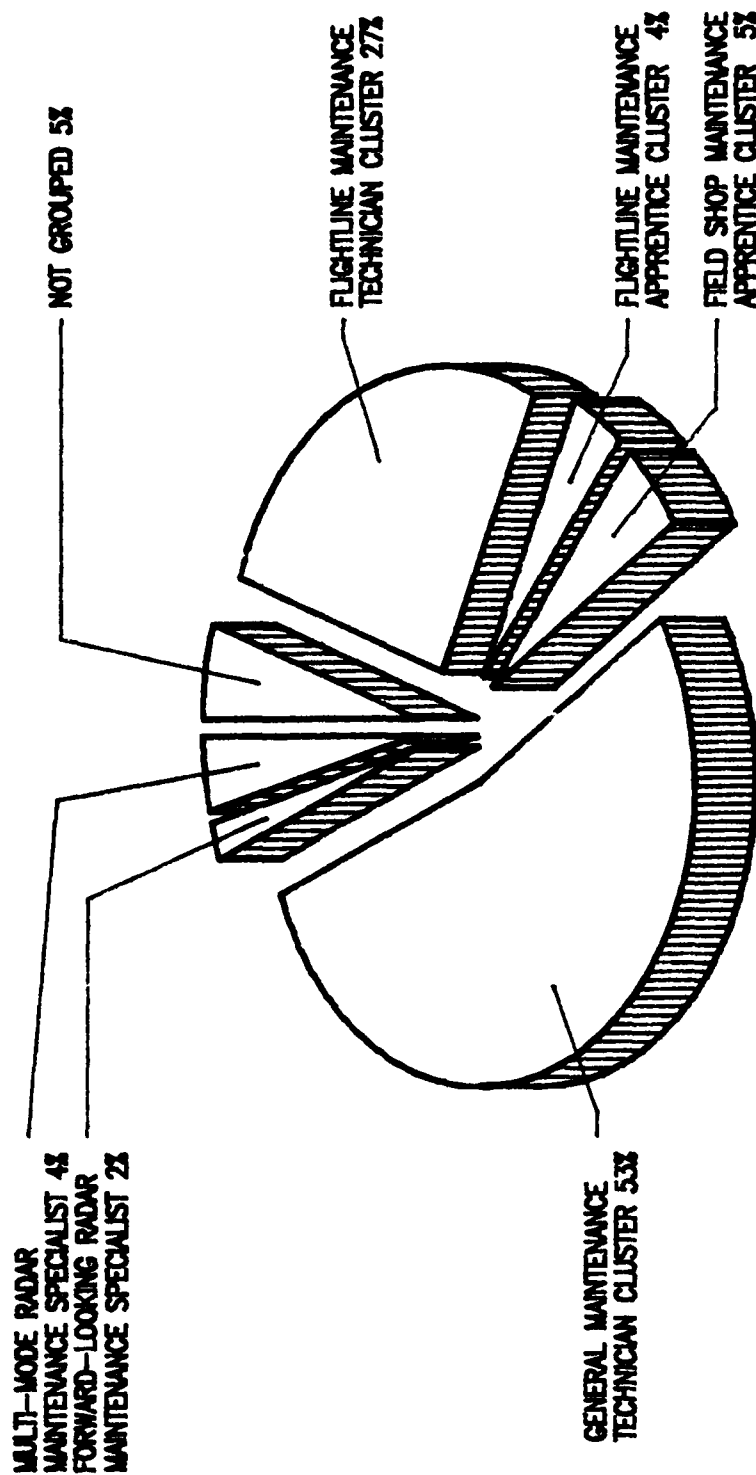
<u>AVIONIC COMMUNICATIONS EQUIPMENT MAINTAINED</u>	<u>PERCENT MEMBERS RESPONDING (N=522)</u>
UHF RADIO AN/ARC-164	92
UHF HAVEQUICK SYSTEM ARC-164	77
INTERPHONE AN/AIC-18	60
UHF RADIO AN/ARC-186	57
HF RADIO AN/ARC-190	44
HF RADIO 618T SYSTEMS	43
INTERPHONE AN/AIC-10	41
SECURE SPEECH RECORDERS KY-58	40
COCKPIT VOICE RECORDER	34
ELECTRONIC LOCATOR TRANSMITTER	33
INTERPHONE AN/AIC-25	32

TABLE 19  
RELATIVE TIME SPENT ON DUTIES  
BY FIRST-ENLISTMENT AFSC 328X1 PERSONNEL  
(1-48 MONTHS TAFMS)

DUTIES	PERCENT TIME SPENT
A ORGANIZING AND PLANNING	*
B DIRECTING AND IMPLEMENTING	*
C INSPECTING AND EVALUATING	*
D TRAINING	*
E PERFORMING ADMINISTRATIVE FUNCTIONS	6
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT) DUTIES	4
G PERFORMING GENERAL AVIONIC SYSTEMS MAINTENANCE	18
H MAINTAINING AVIONIC SYSTEM MOCKUPS	4
I MAINTAINING VARIABLE OMNI RANGE (VOR) SYSTEMS	6
J MAINTAINING INSTRUMENT LANDING SYSTEMS (ILS)	8
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	2
L MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	5
M MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	10
N MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	*
O MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	4
P MAINTAINING SEARCH AND WEATHER (SW) RADAR SYSTEMS	9
Q MAINTAINING MULTI-MODE (MM) RADAR SYSTEMS	2
R MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	2
S MAINTAINING FORWARD-LOOKING RADAR (FLR) SYSTEMS	2
T MAINTAINING AIRBORNE INTERROGATOR SYSTEMS	2
U MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	11
V MAINTAINING AVIONIC COMMUNICATION SYSTEMS FUNCTIONS	3

\* Denotes less than 1 percent

**FIRST-ENLISTMENT  
AVIONIC NAVIGATION SYSTEMS (AFSC 328X1) PERSONNEL  
IN SPECIALTY JOBS  
(N=416)**



**FIGURE 4**

TABLE 20  
 REPRESENTATIVE TASKS PERFORMED  
 BY AFSC 328X1 FIRST-ENLISTMENT PERSONNEL  
 (1-48 MONTHS TAFMS)

TASKS	PERCENT MEMBERS PERFORMING (N=416)
G250 SAFETY WIRE SYSTEM COMPONENTS	89
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	88
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	88
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	86
G219 INSPECT PARTS RECEIVED FROM SUPPLY	85
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	85
G260 TRACE SIGNALS USING WIRING DIAGRAMS	84
E139 MAKE ENTRIES ON AFTO FORMS 781 SERIES (AIRCRAFT FORMS)	83
G259 TRACE CIRCUITS USING SCHEMATICS	83
G208 CLEAN LINE REPLACEABLE UNITS (LRU)	82
G227 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS WIRING	80
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	79
M483 REMOVE OR INSTALL TACAN RT UNITS	79
G223 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING CABLES	78
G226 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS COAXIAL CABLES	78
G253 SOLDER AVIONIC SYSTEM WIRING	78
G256 TEST CONTINUITY OF AVIONIC SYSTEM CABLES	78
G258 TEST CONTINUITY OF AVIONIC SYSTEM WIRING	77
G206 CLEAN AVIONIC EQUIPMENT	76
G222 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS COAXIAL CABLES	76
G257 TEST CONTINUITY OF AVIONIC SYSTEM COAXIAL CABLES	76
E110 LOCATE STOCK NUMBERS ON MICROFICHE	75
U971 REMOVE OR INSTALL IFF/AIMS RT UNITS	75
M461 REMOVE OR INSTALL TACAN CONTROL BOXES	75
I302 REMOVE OR INSTALL VOR RECEIVERS	75

TABLE 21

TEST EQUIPMENT USED BY 30 PERCENT OR  
MORE OF FIRST ENLISTMENT AFSC 328X1 PERSONNEL  
(1-48 MONTHS TAFMS)

<u>TEST EQUIPMENT USED</u>	<u>PERCENT MEMBERS RESPONDING (N=416)</u>
DIGITAL MULTIMETERS	97
MULTIMETERS	83
DIGITAL VOLTMETERS	82
OSCILLOSCOPES	82
VOR/ILS FLIGHTLINE TEST SETS	80
DUMMY LOADS	78
IFF/AIMS FLIGHTLINE TEST SETS	75
TACAN FLIGHTLINE TEST SETS	75
POWER METERS	72
FREQUENCY COUNTERS	70
SIGNAL GENERATORS	68
ATTENUATORS	67
MODE 4 COMPUTER TEST SETS	61
TACAN SHOP TEST SETS	61
AMMETERS	60
VOR/ILS SHOP TEST SETS	60
IFF/AIMS SHOP TEST SETS	58
DIRECTIONAL COUPLERS	55
DIFFERENTIAL VOLTMETERS	53
RADAR ALTIMETER SHOP TEST SETS	53
MILLIVOLTMETERS	50
POWER SUPPLIES, LOW VOLTAGE	50
PULSE GENERATORS	50
FREQUENCY METERS	48
SEARCH AND WEATHER RADAR SHOP TEST SET	48
SPECTRUM ANALYZERS	45
WATTMETERS	44
OSCILLOSCOPE PLUG-INS	39
RADIO ALTIMETER TEST SETS	34
STANDING WAVE RADIO (SWR) INDICATORS	33
POWER SUPPLIES, OTHER THAN LOW VOLTAGE	32
SWEEP GENERATORS	31

TABLE 22

AVIONIC NAVIGATION SYSTEMS EQUIPMENT MAINTAINED BY  
30 PERCENT OR MORE OF FIRST ENLISTMENT AFSC 328X1 PERSONNEL  
(1-48 MONTHS TAFMS)

<u>AVIONIC NAVIGATION SYSTEMS EQUIPMENT MAINTAINED</u>	<u>PERCENT MEMBERS RESPONDING (N=416)</u>
TACAN SYSTEMS-ARN-118	94
IDENTIFICATION/INTERROGATOR SYSTEMS-KIT-1A	71
IDENTIFICATION/INTERROGATOR SYSTEMS-APX-64	56
SEARCH WEATHER OR MULTI-MODE SYSTEMS-APN-59	45
IDENTIFICATION/INTERROGATOR SYSTEMS-KIR-1A	44
VOR/ILS-ARN-127	42
VOR/ILS-5IR-6	38
VOR/ILS-5IV-4	36
IDENTIFICATION/INTERROGATOR SYSTEMS-APX-72	31
VOR/ILS-ARN-14	31



TABLE 23  
TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS  
(AFSC 328X0)

TASKS	TNG EMP	PERCENT 328X0 1ST ENL (N=522)	TNG DIF
*F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	6.82	81	6.04
*E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	6.71	88	3.78
*F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	6.67	76	6.19
F167 FABRICATE COAXIAL CABLES	6.45	76	4.36
*F201 SOLDER AVIONIC SYSTEM WIRING	6.34	87	4.62
F163 BENCH CHECK AVIONIC SYSTEMS MOCKUP LRU	6.33	57	5.82
F166 FABRICATE AVIONIC CONNECTORS	6.33	71	4.57
*E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	6.29	88	4.04
G232 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	6.29	84	5.50
*E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	6.25	70	4.24
*F176 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING	6.19	78	6.81
G218 BENCH CHECK UHF RECEIVER-TRANSMITTERS	6.19	57	5.63
G213 ALIGN UHF RECEIVER-TRANSMITTERS	6.14	57	5.71
F172 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS CABLES	6.12	75	5.05
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	6.10	54	5.94
*F202 SPLICE AVIONIC SYSTEM WIRING	6.10	81	4.12
G227 ISOLATE MALFUNCTIONS IN UHF RECEIVER-TRANSMITTERS	6.07	63	5.86
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	5.99	66	4.54
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	5.97	83	4.83
K359 BENCH CHECK HF RECEIVER-TRANSMITTERS	5.90	39	6.22
*E140 MAKE ENTRIES ON SUPPLY TURN IN OR ISSUE FORMS, SUCH AS DD FORMS 1577, AF FORMS 2005, OR DD FORMS 1150	5.85	67	5.60
K356 BENCH CHECK HF COUPLERS	5.85	36	5.60
F188 REMOVE OR REPLACE AVIONIC SYSTEM MULTIPLE WIRING PLUG PINS	5.81	76	6.06
K365 ISOLATE MALFUNCTIONS IN HF RECEIVER-TRANSMITTERS	5.81	43	6.47
K367 ISOLATE MALFUNCTIONS IN HF SYSTEMS	5.80	53	6.00

\* Indicates tasks also appearing on Table 24

TABLE 24  
TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS  
(AFSC 328X1)

TASKS	TNG EMP	PERCENT 328X1 1ST ENL (N=416)	TNG DIF
*G259 TRACE CIRCUITS USING SCHEMATICS	6.91	83	6.05
*G260 TRACE SIGNALS USING WIRING DIAGRAMS	6.85	84	6.34
E104 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	6.64	70	3.57
*E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	6.59	88	3.34
E139 MAKE ENTRIES ON AFTO FORMS 781 SERIES (AIRCRAFT FORMS)	6.53	83	3.83
*E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	6.45	79	3.59
E110 LOCATE STOCK NUMBERS ON MICROFICHE	6.43	75	3.23
*E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	6.43	88	3.56
G252 SOLDER AVIONIC SYSTEM COAXIAL CABLES	6.36	74	4.18
*G253 SOLDER AVIONIC SYSTEM WIRING	6.35	78	4.17
*G254 SPLICE AVIONIC SYSTEM WIRING	6.12	71	3.98
G257 TEST CONTINUITY OF AVIONIC SYSTEM COAXIAL CABLES	6.00	76	4.28
G248 REMOVE OR INSTALL MULTIPLE WIRE PLUGS	5.98	60	6.07
*E140 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS AF FORM 2005, OR DD FORM 1150	5.91	74	3.81
G256 TEST CONTINUITY OF AVIONIC SYSTEM CABLES	5.86	78	4.25
G249 REMOVE OR INSTALL RADIO FREQUENCY (RF) COAXIAL CONNECTORS	5.85	67	4.41
G258 TEST CONTINUITY OF AVIONIC SYSTEM WIRING	5.85	77	4.41
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	5.78	85	4.39
G222 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS COAXIAL CABLES	5.74	76	5.62
G223 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING CABLES	5.67	78	6.27
*G227 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS WIRING	5.60	80	6.34
G226 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS COAXIAL CABLES	5.52	78	6.01
J324 OPERATIONALLY CHECK GLIDESLOPES USING FLIGHTLINE TEST EQUIPMENT (FTE)	5.41	74	4.31
I286 ISOLATE MALFUNCTIONS IN VOR SYSTEMS	5.24	66	5.46
I288 OPERATIONALLY CHECK VOR USING FLIGHTLINE TEST EQUIPMENT (FTE)	5.21	70	4.76
J325 OPERATIONALLY CHECK LOCALIZERS USING FTE	5.21	63	4.30

\* Indicates tasks also appearing on Table 23

It should be noted that there are nine tasks which appear on both tables (indicated by an asterisk), indicating that a good portion of the high TE-rated tasks are already being performed by the merged groups. These tasks deal with general electronic principles and administration.

Tables 25 (AFSC 328X0) and 26 (AFSC 328X1) list the tasks having the highest TD ratings for each AFSC. The percentage of first-enlistment personnel performing and the TE ratings are also included for each task. The majority of the tasks in Table 25 are technically-oriented, but deal with avionic communications and navigation systems that are not worked on by many first-enlistment communications personnel (i.e., Task W725, Align rendezvous radar beacon (RRB) LRU, less than 1 percent first-enlistment personnel performing). The tasks in Table 26 break out a little differently, with more nontechnical tasks listed. There are, however, 12 tasks that deal with technical navigation systems maintenance. As with the TE ratings, these lists should not be considered as all-inclusive.

TE and TD data are secondary factors that can assist technical school personnel in deciding what tasks should be emphasized in entry-level training. These ratings, based on the judgements of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks considered important for first-term airmen training (TE), along with a measure of the difficulty of those tasks (TD). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for QJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-term personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks. Various lists of tasks, accompanied by TE and TD ratings, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. Eighteen navigation systems raters provided write-in comments at the end of their booklets. The majority added tasks for rating. Three provided comments about the need for basic electronics and test equipment training, plus the need for more emphasis on the paperwork requirements of the career ladder. (For additional information on TE and TD ratings, see Task Factor Administration in the SURVEY METHODOLOGY section of this report.)

### Specialty Training Standard (STS)

Since the RIVET WORKFORCE merger of the 328X0 and 328X1 AFSCs occurred before this report was completed and new STSs for AFSC 445X2 are in use, these documents were used for the analytical process. The three separate STSs, one for MAC (AFSC 455X2A), one for SAC (AFSC 455X2B), and one for TAF (AFSC 455X2C), all dated 20 May 1988, were developed to provide for the unique requirements of these three different groups. The requirements were determined by the functional managers and subject-matter experts of the different

TABLE 25  
TASKS WITH HIGHEST TASK DIFFICULTY RATINGS  
(AFSC 328X0)

TASKS		TNG EMP	PERCENT 328X0 1ST ENL (N=522)	TNG DIF
C67	WRITE STAFF STUDIES	7.72	1	.00
X796	BORESIGHT FLR/TF ANTENNAS	7.69	*	.58
X802	ISOLATE MALFUNCTIONS IN FLR/TF SYSTEMS	7.49	1	.71
X793	ADJUST FORWARD-LOOKING RADAR/TERRAIN-FOLLOWING (FLR/TF) RADAR	7.34	1	.63
W722	ALIGN FORWARD-LOOKING RADAR/TERRAIN-FOLLOWING (FLR/TF) LRU	7.33	1	.60
S620	ISOLATE MALFUNCTIONS IN AFSATCOM LOGIC POWER SUPPLY SUBASSEMBLIES	7.28	1	1.03
D81	DEVELOP CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	7.21	1	.07
W727	ALIGN SEARCH AND WEATHER RADAR (SW) LRU	7.21	1	.74
D82	DEVELOP RESIDENT COURSE CURRICULUM MATERIALS	7.17	1	.08
W725	ALIGN RENDEZVOUS RADAR BEACON (RRB) LRU	7.15	*	.74
W745	ISOLATE MALFUNCTIONS IN FLR/TF LRU	7.10	1	.55
W753	ISOLATE MALFUNCTIONS IN RRB SRU	7.09	*	.71
S603	BENCH CHECK AFSATCOM ANTENNAS	7.05	1	.88
S614	ISOLATE MALFUNCTIONS IN AFSATCOM COMMAND POST POWER SUPPLY SUBASSEMBLIES	6.99	2	.84
C47	EVALUATE FINANCIAL REQUIREMENTS	6.97	1	.01
F177	ISOLATE MALFUNCTIONS TO COMPONENTS OF AVIONIC DIGITAL SYSTEMS	6.92	25	4.44
Q563	REMOVE OR REPLACE SHF SATELLITE RECEIVER TIME SYSTEM ANTENNA PREAMPS	6.91	1	.58
Q565	REMOVE OR REPLACE SHF SATELLITE RECEIVER TIME SYSTEM OSCILLATORS	6.91	*	.58
Q570	REMOVE OR REPLACE SHF SATELLITE RECEIVER TIME SYSTEM SIGNAL GENERATORS	6.91	1	.58
S600	ALIGN AIR FORCE SATELLITE COMMUNICATION (AFSATCOM) ANTENNAS	6.91	1	.62
X824	OPERATIONALLY CHECK FLR/TF USING FLIGHTLINE TEST EQUIPMENT	6.91	1	.96
S613	ISOLATE MALFUNCTIONS IN AFSATCOM COMMAND POST POWER SUPPLIES	6.89	2	.95
W724	ALIGN LORAN LRU	6.89	*	.53
S619	ISOLATE MALFUNCTIONS IN AFSATCOM LOGIC POWER SUPPLIES	6.82	5	1.27
F176	ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING	6.81	78	6.19
S625	ISOLATE MALFUNCTIONS IN AFSATCOM SYSTEMS	6.79	13	1.69

\* Less than 1 percent members performing

TABLE 26  
TASKS WITH HIGHEST TASK DIFFICULTY RATINGS  
(AFSC 328X1)

TASKS		TNG EMP	PERCENT 328X1 1ST ENL (N=416)	TNG DIF
A9	DRAFT BUDGET REQUIREMENTS	8.19	1	.07
F164	PERFORM ENGINE CHANGES	7.80	3	.14
C48	EVALUATE BUDGET REQUIREMENTS	7.55	*	.07
R783	ISOLATE MALFUNCTIONS IN SKE ELECTRONIC SYSTEM TEST SETS	7.55	5	.86
R779	CALIBRATE SKE ELECTRONIC SYSTEM TEST SETS	7.47	4	.79
D84	DEVELOP RESIDENT COURSE MATERIALS	7.33	*	.03
F175	PERFORM STRUT CHANGES	7.31	1	.09
Q729	BORESIGHT MM ANTENNAS	7.26	5	.57
B28	COUNSEL PERSONNEL ON PERSONAL PROBLEMS	7.24	5	1.10
R764	ALIGN SKE CODER/DECODERS	7.18	12	1.33
C74	WRITE SPECIAL REPORTS	7.11	1	.41
C67	INVESTIGATE ACCIDENTS	7.10	1	.05
C68	INVESTIGATE INCIDENTS	7.06	1	.05
F165	PERFORM FLIGHT CONTROL HYDRO-ELECTRICAL PACK CHANGES	7.06	1	.07
G211	FABRICATE AVIONIC SYSTEM MOCKUPS	7.06	13	2.19
K350	ALIGN RRB RECEIVER-TRANSMITTER (RT) UNITS	7.04	14	2.72
C72	WRITE APR	7.03	5	3.02
C73	WRITE CIVILIAN PERFORMANCE APPRAISALS	7.00	*	.17
P667	ISOLATE MALFUNCTIONS IN SW RT UNITS	6.99	39	4.72
R788	ISOLATE MALFUNCTIONS IN SKE RT UNITS	6.99	12	1.21
P641	ALIGN SW RECEIVER-TRANSMITTER (RT) UNITS	6.98	39	4.59
C50	EVALUATE INDIVIDUALS FOR DEMOTION	6.95	1	.19
D99	WRITE JOB QUALIFICATION STANDARDS (JQS)	6.94	*	.28
A12	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	6.92	2	.14
U834	ISOLATE MALFUNCTIONS IN FLR ANTENNA RECEIVERS	6.91	4	.09
C52	EVALUATE INDIVIDUALS FOR RECLASSIFICATION	6.89	1	.09

\* Less than 1 percent members performing

commands, based on their knowledge of the AFSC and the maintenance policies, types of equipment maintained, and the missions of the organizations within the major groups.

The STSs are standardized in that each has at least 16 major paragraphs and an Electronic Fundamentals/Applications Attachment. The first 10 paragraphs deal with supervisory, training, and administrative areas and are the same in each STS. Paragraphs 11 (Communications Systems Principles) and 12 (Navigation Systems Principles) are knowledge-type areas and differ internally, based on the specific systems for which the major command groups are responsible. Paragraphs 13 (Off-Equipment Maintenance) and 14 (On-Equipment Maintenance), like paragraphs 11 and 12, vary based on the systems involved. The breakout of the subparagraphs for each system is standardized in each of the three STSs. Paragraphs 15 (Preventative Maintenance) and 16 (General Category) are the same in all three STSs. The Electronic Fundamentals/Applications portion was not part of the surveys for AFSCs 328X0 and 328X1, but a separate USAFOMC Electronic Principles Inventory (EPI), completed in October 1988, included personnel of both AFSCs. The results of that survey as it relates to these two AFSCs were analyzed and will be covered later in this report.

To analyze these documents, it was necessary to match tasks from both surveys to each document. Data were displayed for the major command group (MAC, SAC, and TAF) that was applicable for each document. STS paragraphs containing general knowledge information, subject-matter knowledge requirements, or supervisory responsibilities were not evaluated. Any element which was supported by at least 20 percent members performing from the 328X0 or 328X1 AFSC was considered to be a valid area to be included in the STS. Where a change is suggested by the survey data and the area is included in a table, only the task reflecting the highest percent members performing is used to support the finding. Complete data is available with the computer printouts provided with this report.

455X2A STS. This STS was established for MAC personnel outlining the systems and areas they will be expected to maintain. Overall, the 455X2A STS provides a generalized but comprehensive coverage of the type work performed in the field by MAC personnel. Survey data provide support for inclusion of the major paragraphs and most of the subparagraphs. There are, however, some areas that should be reviewed by training personnel and MAC subject-matter experts.

Table 27 reflects systems that require review because the survey data do not show that 20 percent or more of the personnel are performing tasks matched to subparagraphs under the systems. There are six systems listed at 13h, 13l, 13m, 13v, 14k, and 14u, with subparagraphs that are not supported at the 20 percent level. These subparagraphs should be reviewed to determine if retention in the STS is warranted.

Table 28 shows a number of subparagraphs of this STS that should be reviewed for potential upgrade of the 3-skill level proficiency code from a dash to a more definitive training proficiency code. All of these

TABLE 27

455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	PERCENT MEMBERS PERFORMING						TE*	TD**	RATING	RATING
			3LVL	1ST JOB	1ST ENL	DAFSC	DAFSC	DAFSC				
			105	(C=105)	(C=166)	45552	45572	(C=159)				
			93	(N=93)	(N=152)	(N=268)	(N=212)					
13h SECURE VOICE												
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU												
R574 BENCH CHECK SECURE VOICE SYSTEM CONTROLS	C		5	5	5	5	6	6	2.41	4.85		
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS												
R578 ISOLATE MALFUNCTIONS IN SECURE VOICE SYSTEM CONTROLS	C		11	11	10	12	12	12	2.32	5.05		
(3) REMOVE SRU OR COMPONENTS												
R594 REMOVE OR REPLACE SECURE VOICE SYSTEM KEYS/CODER SUBASSEMBLIES	C		5	5	5	6	6	6	2.41	4.85		
(4) INSTALL SRU OR COMPONENTS												
R594 REMOVE OR REPLACE SECURE VOICE SYSTEM KEYS/CODER SUBASSEMBLIES	C		5	5	5	6	6	6	2.41	4.85		

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 27 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	3LVL 1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	PERCENT MEMBERS PERFORMING		TE* RATING	TD** RATING
					DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS R571 ADJUST SECURE VOICE SYSTEM ENCRYPTION UNITS	C	-	5	5	5	6	2.14	5.41
131 AFSATCOM								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU S605 BENCH CHECK AFSATCOM CONTROLS	C	-	2	2	1	3	1.40	5.91
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS S616 ISOLATE MALFUNCTIONS IN AFSATCOM CONTROLS	C	-	1	2	2	1	1.37	6.13
(3) REMOVE SRU OR COMPONENTS S645 REMOVE OR REPLACE AFSATCOM MODEM SUBASSEMBLIES	C	-	1	1	1	2	1.21	5.51

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00



TABLE 27 (CONTINUED)  
455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	3LVL 1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	PERCENT MEMBERS PERFORMING		TE* RATING	TD** RATING
					DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
(4) INSTALL SRU OR COMPONENTS S645 REMOVE OR REPLACE AFSATCOM MODEM SUBASSEMBLIES	C	-	1	1	1	1	1.23	6.71
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS S602 ALIGN AFSATCOM TELEPRINTERS	C	-	1	1	1	1	1.23	6.71
13m DIRECTION FINDERS								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU N442 BENCH CHECK UHF DF ANTENNAS	C	-	11	14	18	13	3.18	5.41
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS N452 ISOLATE MALFUNCTIONS IN UHF DF ANTENNAS	C	-	11	13	18	13	3.08	5.89

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
\*\* Average TD Rating is 5.00

TABLE 27 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	PERCENT MEMBERS PERFORMING						TE*	TD**
			3LVL 1ST JOB	1ST ENL	DAFSC 45552	DAFSC 45572	(C=166)	(C=235)		
			(N=93)	(N=152)	(N=268)	(N=212)			RATING	RATING
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS N436 ALIGN UHF DF ANTENNAS	C	-	9	11	17	12			3.53	5.63
13v RADAR BEACON										
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU K354 BENCH CHECK RRB RT UNITS	N	-	8	5	6	3			2.79	6.45
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS K359 ISOLATE MALFUNCTIONS IN RRB SYSTEMS	N	-	10	8	8	8			3.03	6.08
(3) REMOVE SRU OR COMPONENTS K370 REMOVE OR INSTALL RRB RT SUBASSEMBLIES	N	-	6	4	4	3			1.52	4.42

C = Communication survey data used

N = Navigation Systems survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 27 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING							TE*	TD**
	SURVEY DATA	PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	RATING		
(4) INSTALL SRU OR COMPONENTS K370 REMOVE OR INSTALL RRB RT SUBASSEMBLIES	N	-	6	4	4	3	1.52	4.42	
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS K350 ALIGN RRB RECEIVER-TRANSMITTER (RT) UNITS	N	-	6	4	5	3	2.72	7.03	
14k AFSATCOM									
(1) PERFORM OPERATIONAL CHECKS S626 PERFORM RADIO FREQUENCY LOAD BUILT-IN TEST OF AFSATCOM	C	-	1	2	2	2	1.58	5.21	
(2) ISOLATE MALFUNCTIONS S626 PERFORM RADIO FREQUENCY LOAD BUILT-IN TEST OF AFSATCOM	C	-	1	2	2	2	1.58	5.21	

C = Communication survey data used  
N = Navigation Systems survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00

TABLE 27 (CONTINUED)  
455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE*	TD**
	SURVEY DATA	PROF CODE	3LVL	1ST JOB	1ST ENL	DAFSC		
			(C=105)	(C=166)	(C=152)	(C=235)		
(3) REMOVE SYSTEM LRU S649 REMOVE OR REPLACE AFSATCOM RECEIVER PREAMPS	C	-	6	6	3	4	1.36	6.02
(4) INSTALL SYSTEM LRU S649 REMOVE OR REPLACE AFSATCOM RECEIVER PREAMPS	C	-	6	6	3	4	1.36	6.02
14u RADAR BEACON								
(1) PERFORM OPERATIONAL CHECKS K361 OPERATIONALLY CHECK RRB SYSTEMS USING SEARCH AND WEATHER RADAR SYSTEMS	N	-	8	7	10	3	2.95	5.34

C = Communication survey data used  
N = Navigation Systems survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00

TABLE 27 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING					TE*	TD**
	3LVL 1ST JOB 1ST ENL	DAFSC 45552	DAFSC 45572	SURVEY PROF (C=105) (C=166) (C=235) (C=159)	DATA CODE (N=93) (N=152) (N=268) (N=212)		
(2) ISOLATE MALFUNCTIONS K359 ISOLATE MALFUNCTIONS IN RRB SYSTEMS	-	-	-	-	-	-	-
(3) REMOVE SYSTEM LRU K371 REMOVE OR INSTALL RRB RT UNITS	N	10	8	3	3.03	6.08	
(4) INSTALL SYSTEM LRU K371 REMOVE OR INSTALL RRB RT UNITS	N	12	10	5	2.31	4.96	
	N	12	10	5	2.31	4.96	

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 28

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						
	SURVEY DATA	PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	TE* TD** RATING RATING
13c MAINTAIN TEST BENCH MOCK-UPS	-						
H263 BENCH CHECK MOCKUP LRU	C		89	89	75	55	4.90 5.26
13f(6) (HF RADIO) ADJUST SYSTEM LRU TO TO SPECIFICATIONS	-						
K349 ALIGN HF CONTROL UNITS	C		31	39	39	26	4.70 4.92
13k(1) (PUBLIC ADDRESS) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU	-						
M416 BENCH CHECK PUBLIC ADDRESS (PA) AMPLIFIERS	C		49	53	50	35	3.42 4.44

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	DATA	CODE	PERCENT MEMBERS PERFORMING				TE*	TD**
			3LVL 1ST JOB 1ST ENL	DAFSC 45552	DAFSC 45572	(C=235)	(C=159)	(N=212)
			(N=93)	(N=152)	(N=268)	(N=212)	RATING	RATING
13k(2) (PUBLIC ADDRESS) ISOLATE MALFUNCTIONS TO SRU OR COMPONENT	-							
M422 ISOLATE MALFUNCTIONS IN PA CONTROL UNITS	C		40	47	47	33	3.25	4.88
13k(3) (PUBLIC ADDRESS) REMOVE SRU OR COMPONENT	-							
M429 REMOVE OR REPLACE PA CONTROL UNIT COMPONENTS	C		33	41	43	35	2.78	4.39
13k(4) (PUBLIC ADDRESS) INSTALL SRU OR COMPONENT	-							
M429 REMOVE OR REPLACE PA CONTROL UNIT COMPONENTS	C		33	41	43	35	2.78	4.39

C = Communication survey data used  
N = Navigation Systems survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL PROF CODE	PERCENT MEMBERS PERFORMING				TE*	TD**
			1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
13p(3) (RADAR ALTIMETERS) REMOVE SRU OR COMPONENT	-							
L411 REMOVE OR INSTALL RRA RT SUBASSEMBLIES	N		44	51	49	36	2.28	4.56
13p(4) (RADAR ALTIMETERS) INSTALL SRU OR COMPONENT	-							
L411 REMOVE OR INSTALL RRA RT SUBASSEMBLIES	N		44	51	49	36	2.28	4.56
13p(6) (RADAR ALTIMETERS) ADJUST SYSTEMS LRU TO SPECIFICATIONS	-							
L374 ADJUST RADIO/RADAR ALTIMETER (RRA) SYSTEMS	N		55	64	61	44	4.03	6.47
13T(1) (ADS) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU	-							
O584 BENCH CHECK ADF CONTROL BOXES	N		68	72	65	44	3.00	4.31

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00



TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	PERCENT MEMBERS PERFORMING					TE*	TD**	RATING
			3LVL	1ST JOB	1ST ENL	DAFSC	DAFSC			
			(C=105)	(C=166)	(C=235)	45552	45572	(C=159)		
			(N=93)	(N=152)	(N=268)	(N=212)				
13T(2) (ADA) ISOLATE MALFUNCTIONS TO SRU OR COMPONENT	-									
0600 ISOLATE MALFUNCTIONS IN ADF SYSTEMS	N		76	77	66	50		2.81	5.59	
13T(3) (ADA) REMOVE SRU OR COMPONENT	-									
0624 REMOVE OR INSTALL ADF RECEIVER SUBASSEMBLIES	N		52	56	51	36		1.98	4.51	
13T(4) (ADS) INSTALL SRU OR COMPONENT	-									
0624 REMOVE OR INSTALL ADF RECEIVER SUBASSEMBLIES	N		52	56	51	36		1.98	4.51	
13T(6) (ADS) ADJUST SYSTEMS LRU TO SPECIFICATIONS	-									
0578 ADJUST ADF SYSTEMS	N		59	64	60	42		2.26	5.33	

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	DATA	CODE	PERCENT MEMBERS PERFORMING					TE*	TD**
			3LVL	1ST JOB	1ST ENL	DAFSC	DAFSC		
			SURVEY PROF	(C=105)	(C=166)	45552	45572	(C=159)	
				(N=93)	(N=152)	(N=268)	(N=212)		
14c(3) (INTERPHONE) REMOVE SYSTEM LRU	-								
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	C			96	86	62	4.07	3.56	
14c(4) (INTERPHONE) INSTALL SYSTEM LRU	-								
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	C			96	86	62	4.07	3.56	
14d(3) (UHF RADIO) REMOVE SYSTEM LRU	-								
G246 REMOVE OR REPLACE UHF CONTROL UNITS	C			72	77	75	57	4.11	3.50
14d(4) (UHF RADIO) INSTALL SYSTEM LRU	-								
G246 REMOVE OR REPLACE UHF CONTROL UNITS	C			72	77	75	57	4.11	3.50

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL 1ST JOB PROF (C=105) CODE (N=93)	1ST ENL (C=166) (N=152)	JAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	TE*	TD**
14e(2) (HF RADIO) ISOLATE MALFUNCTIONS	-						
K367 ISOLATE MALFUNCTIONS IN HF SYSTEMS	C	67	75	75	62	5.85	6.00
14e(3) (HF RADIO) REMOVE SYSTEM LRU	-						
K386 REMOVE OR REPLACE HF RECEIVER- TRANSMITTERS	C	83	89	89	69	4.66	4.39
14e(4) (HF RADIO) INSTALL SYSTEM LRU	-						
K386 REMOVE OR REPLACE HF RECEIVER- TRANSMITTERS	C	83	89	89	69	4.66	4.39
14f(1) (VHF AM/FM RADIO) PERFORM OPERATIONAL CHECKS	-						
H278 OPERATIONALLY CHECK VHF AM/FM SYSTEM USING FLIGHTLINE TEST EQUIPMENT	C	77	80	70	56	4.40	4.65

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE* RATING	TD** RATING
	SURVEY DATA	3LVL PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
14f(2) (VHF AM/FM RADIO) ISOLATE MALFUNCTIONS		-						
0263 ADJUST VERY HIGH FREQUENCY (VHF) AMPLITUDE AND FREQUENCY MODULATED (AM/FM) RADIO SYSTEMS	C		63	63	51	36	3.78	5.60
14f(3) (VHF AM/FM RADIO) REMOVE SYSTEM LRU		-						
H291 REMOVE OR REPLACE VHF AM/FM RECEIVER- TRANSMITTERS	C		82	86	80	58	3.86	3.91
14f(4) (VHF AM/FM RADIO) INSTALL SYSTEM LRU		-						
H291 REMOVE OR REPLACE VHF AM/FM RECEIVER- TRANSMITTERS	C		82	86	80	58	3.86	3.91

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	DATA	PERCENT MEMBERS PERFORMING					TE*	TD**
		SURVEY CODE	3LVL 1ST JOB 1ST ENL	DAFSC 45552	DAFSC 45572	(C=159)		
			(C=105)	(C=166)	(C=235)	(N=212)	RATING	RATING
			(N=93)	(N=152)	(N=268)	(N=212)		
14h(2) (COCKPIT VOICE RECORDER) ISOLATE MALFUNCTIONS	-							
R577 ISOLATE MALFUNCTIONS IN COCKPIT VOICE RECORDER SYSTEMS	C		39	43	45	36	2.07	4.65
14h(3) (COCKPIT VOICE RECORDER) REMOVE SYSTEM LRU	-							
R585 REMOVE OR REPLACE COCKPIT VOICE RECORDER SYSTEM CONTROLS	C		36	43	49	38	1.71	3.73
14h(4) (COCKPIT VOICE RECORDER) INSTALL SYSTEM LRU	-							
R585 REMOVE OR REPLACE COCKPIT VOICE RECORDER SYSTEM CONTROLS	C		36	43	49	38	1.71	3.73

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
 \*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF (C=105) (N=93)	1ST JOB (C=166) (N=152)	ENL (C=235) (N=268)	DAFSC 45552 (C=159) (N=212)	DAFSC 45572 (C=159) (N=212)	TE*	TD**
							RATING	RATING
14i(1) (EMERGENCY LOCATOR TRANSMITTERS) PERFORM OPERATIONAL CHECKS	-							
0506 OPERATIONALLY CHECK ELT USING SELF-TESTS	C	60	63	65	50		2.89	3.37
14j(2) (EMERGENCY LOCATOR TRANSMITTERS) ISOLATE MALFUNCTIONS	-							
0499 ISOLATE MALFUNCTIONS IN ELT SYSTEMS	C	44	51	57	43		2.79	4.36
14j(1) (PUBLIC ADDRESS) PERFORM OPERATIONAL CHECKS	-							
M425 OPERATIONALLY CHECK PA SYSTEMS	C	70	77	78	78		3.55	3.51
14j(2) (PUBLIC ADDRESS) ISOLATE MALFUNCTIONS	-							
M424 ISOLATE MALFUNCTIONS IN PA SYSTEMS	C	56	64	65	45		3.38	4.94

C = Communication survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	PERCENT MEMBERS PERFORMING		TE*	TD**
					DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
14j(3) (PUBLIC ADDRESS) REMOVE SYSTEM LRU	-							
M433 REMOVE OR REPLACE PA SET CONTROL UNITS	C		48	56	63	48	2.82	3.45
14j(4) (PUBLIC ADDRESS) INSTALL SYSTEM LRU	-							
M433 REMOVE OR REPLACE PA SET CONTROL UNITS	C		48	56	63	48	2.82	3.45
14m(3) (IFF TRANSPONDER) REMOVE SYSTEM LRU	-							
U950 REMOVE OR INSTALL IFF/AIMS CONTROL BOX COMPONENTS	N		82	86	85	61	3.14	3.46
14m(4) (IFF TRANSPONDER) INSTALL SYSTEM LRU	-							
U950 REMOVE OR INSTALL IFF/AIMS CONTROL BOX COMPONENTS	N		82	86	85	61	3.14	3.46

C = Communication survey data used

N = Navigation Systems survey data used

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE*	TD**
	SURVEY DATA	3LVL PROF CODE	1ST JOB (C=105)	1ST ENL (C=166)	DAFSC 45552 (C=235)	DAFSC 45572 (C=159)		
			(N=93)	(N=152)	(N=268)	(N=212)	RATING	RATING
14n(3) (IFF MODE IV COMPUTERS) REMOVE SYSTEM LRU	-							
U960 REMOVE OR INSTALL IFF/AIMS KIT COMPUTERS	N		71	78	78	59	3.09	3.11
14n(4) (IFF MODE IV COMPUTER) INSTALL SYSTEM LRU	-							
U960 REMOVE OR INSTALL IFF/AIMS KIT COMPUTERS	N		71	78	78	59	3.09	3.11
14o(2) (RADAR ALTIMETERS) ISOLATE MALFUNCTIONS	-							
L391 ISOLATE MALFUNCTIONS IN RRA SYSTEMS	N		56	64	65	49	4.41	5.95
14o(3) (RADAR ALTIMETERS) REMOVE SYSTEM LRU	-							
L412 REMOVE OR INSTALL RRA RT UNITS	N		73	78	77	56	3.34	4.02

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00



TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	PERCENT MEMBERS PERFORMING		TE*	TD**
					DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
14o(4) (RADAR ALTIMETERS) INSTALL SYSTEM LRU	-	-	-	-	-	-	-	-
L412 REMOVE OR INSTALL RRA RT UNITS	N	-	73	78	77	56	3.34	4.02
14p(2) (TACAN) ISOLATE MALFUNCTIONS	-	-	-	-	-	-	-	-
M443 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	N	-	75	81	75	55	4.66	5.25
14p(3) (TACAN) REMOVE SYSTEM LRU	-	-	-	-	-	-	-	-
M483 REMOVE OR INSTALL TACAN RT UNITS	N	-	84	88	89	65	3.33	3.19
14p(4) (TACAN) INSTALL SYSTEM LRU	-	-	-	-	-	-	-	-
M483 REMOVE OR INSTALL TACAN RT UNITS	N	-	84	88	89	65	3.33	3.19
14q(3) (VOR) REMOVE SYSTEM LRU	-	-	-	-	-	-	-	-
I302 REMOVE OR INSTALL VOR RECEIVERS	N	-	88	91	89	66	3.47	3.53

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)  
455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL 1ST JOB 1ST ENL PROF (C=105) (C=166) CODE (N=93) (N=152)	PERCENT MEMBERS PERFORMING				TE* TD**
			DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	
14q(4) (VOR) INSTALL SYSTEM LRU	-	-					
I302 REMOVE OR INSTALL VOR RECEIVERS	N	88	91	89	66	3.47	3.53
14r(3) (ILS) REMOVE SYSTEM LRU	-	-					
J331 REMOVE OR INSTALL GLIDESLOPE RECEIVERS	N	80	87	87	63	3.52	3.42
14r(4) (ILS) INSTALL SYSTEM LRU	-	-					
J331 REMOVE OR INSTALL SLIDESLOPE RECEIVERS	N	80	87	87	63	3.52	3.42
14s(1) (ADF) PERFORM OPERATIONAL CHECK	-	-					
O605 OPERATIONALLY CHECK ADF SYSTEMS	N	84	88	86	63	3.71	4.52

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL 1ST JOB PROF (C=105) CODE (N=93)	PERCENT MEMBERS PERFORMING				TE*	TD**
			ISOLATE MALFUNCTIONS	ISOLATE MALFUNCTIONS TO ADF LOOP ANTENNAS	REMOVE SYSTEM LRU	INSTALL ADF RECEIVERS		
14s(2) (ADF) ISOLATE MALFUNCTIONS	-							
0602 ISOLATE MALFUNCTIONS TO ADF LOOP ANTENNAS	N	55	64	63	46	2.21	5.36	
14s(3) (ADF) REMOVE SYSTEM LRU	-							
0625 REMOVE OR INSTALL ADF RECEIVERS	N	88	92	89	61	2.48	3.63	
14s(4) (ADF) INSTALL SYSTEM LRU	-							
0625 REMOVE OR INSTALL ADF RECEIVERS	N	88	92	89	61	2.48	3.63	
14v(3) (SEARCH AND WEATHER RADAR) REMOVE SYSTEM LRU	-							
P683 REMOVE OR INSTALL SW CONTROL BOXES	N	66	73	78	53	3.03	3.66	

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	DATA	SURVEY PROF (C=105)	3LVL 1ST JOB (C=166)	PERCENT MEMBERS PERFORMING				TE*	TD**
				CODE	(N=93)	(N=152)	(N=268)	(N=212)	
14v(4) (SEARCH AND WEATHER RADAR) INSTALL SYSTEM LRU	-								
P683 REMOVE OR INSTALL SW CONTROL BOXES	N	66	73	78	53	3.03	3.66		
14x(1) (STATION KEEPING EQUIPMENT) PERFORM OPERATIONAL CHECK	-								
R791 OPERATIONALLY CHECK SKE SYSTEMS	N	41	45	44	33	1.64	5.75		
14x(3) (STATION KEEPING EQUIPMENT) REMOVE SYSTEM LRU	-								
R802 REMOVE OR INSTALL SKE CONTROL BOXES	N	51	53	48	33	1.14	3.42		

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 28 (CONTINUED)

455X2A STS (MAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL 1ST JOB 1ST ENL. PROF (C=105) (C=166) (C=235) (C=159) (N=93) (N=152) (N=268) (N=212)	PERCENT MEMBERS PERFORMING		TE*	TD**
			DAFSC	DAFSC		
14x(4) (STATION KEEPING EQUIPMENT) INSTALL SYSTEM LRU	-		45552	45572		
R802 REMOVE OR INSTALL SKE CONTROL BOXES	N	51	53	48	33	1.14 3.42
16e MODIFY EQUIPMENT	-					
G239 PERFORM TIME COMPLIANCE TECHNICAL ORDER (TCTO) MODIFICATIONS ON AVIONIC SYSTEMS	N	41	55	65	55	3.02 5.98

N = Navigation Systems survey data used

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

subparagraphs have tasks matched which indicate greater than 30 percent of first-job or first-enlistment personnel perform them. A representative task has been provided on the table, with the computer printouts accompanying this report providing much more detail.

Tasks not matched to any element of the STS are listed at the end of the STS computer listing. These were reviewed to determine if there were any tasks concentrated around any particular functions or jobs. No particular trends were noted. Examples of technical tasks performed by 20 percent or more respondents of the STS target groups, but not referenced to any STS element, are shown in Tables 29 (Communications) and 30 (Navigation Systems). Training personnel and MAC subject-matter experts should review these and other eligible unreferenced tasks to determine if the areas they pertain to are justified to be included in the STS.

455X2B STS. This STS was developed for use of SAC personnel and provides information on the systems maintained by them. Overall, the STS provides a generalized but comprehensive coverage of the type work performed in the field by SAC personnel. Survey data provide support for inclusion of the major paragraphs and most of the subparagraphs. There are, however, some areas that should be reviewed by training personnel and SAC subject-matter experts.

Table 31 shows systems that should be reviewed. Subparagraphs 13g(1), 13g(2), 13g(3), 13g(4), and 13g(6) have 3-skill level proficiency codes of 2b. However, none of them have a task matched which reflects 30 percent performing for 3-skill level personnel. Actually, only subparagraph 13g(2) has a task performed by more than 20 percent of the respondents, and that is at the 5-skill level. These subparagraphs should be considered for at least having the proficiency code changed to a dash. The POI impact will be discussed in that section. Systems listed at 13h, 13l, 14f, 14h, and 14j have subparagraphs that are not supported by matched tasks showing 20 or more percent performing at any level. These subparagraphs should be reviewed to determine if retention in the STS is warranted.

Table 32 shows a number of subparagraphs of this STS that should be reviewed for potential upgrade of the 3-skill level proficiency code from a dash to a more definitive training proficiency code. All of these paragraphs have tasks matched which indicate greater than 30 percent of first-job or first-enlistment personnel perform them. A representative task has been provided on the table, with the computer printout accompanying this report providing much more detail.

Examples of technical tasks not matched to any element of the STS which show at least 20 percent performance by one of the target groups are listed in Tables 33 (Communications) and 34 (Navigation Systems). Potential task concentration around specific functions or jobs was reviewed and no particular trends were noted. Training personnel and SAC subject-matter experts should review these and other eligible unreferenced tasks to determine if the areas they cover are justified for inclusion in the STS.

TABLE 29

EXAMPLES OF COMMUNICATIONS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 455X2A (MAC) STS

TASK	PERCENT MEMBERS PERFORMING					TE* RATING	TD** RATING
	1ST JOB (N=105)	1ST ENL (N=166)	DAFSC 32850 (N=235)	DAFSC 32870 (N=159)			
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	70	73	67	48		6.10	5.94
F174 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS TEST EQUIPMENT	34	37	38	38		4.73	3.12
F178 ISOLATE MALFUNCTIONS TO SUBASSEMBLIES OF AVIONIC DIGITAL	31	37	37	30		4.40	6.44
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	81	85	80	57		3.79	3.12
F200 SET UP FLIGHTLINE MAINTENANCE STANDS	79	81	78	58		3.62	2.86
H289 REMOVE OR REPLACE VHF AM/FM RECEIVER-TRANSMITTER	35	42	41	30		3.77	4.86

\* Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 30

EXAMPLES OF NAVIGATION SYSTEMS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 455X2A (MAC) STS

TASK	PERCENT MEMBERS PERFORMING				TE* RATING	TD** RATING
	1ST JOB (N=93)	1ST ENL (N=152)	DAFSC 32851 (N=268)	DAFSC 32871 (N=212)		
F154 CLOSE RADOMES	59	63	65	54	2.97	4.13
F161 OPEN RADOMES	69	73	74	62	3.34	3.69
F162 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	81	85	83	68	4.10	4.00
G212 FORWARD TEST EQUIPMENT TO TEST MEASUREMENT AND DIAGNOSTIC	20	29	38	39	3.14	3.10
G214 IDENTIFY TEST EQUIPMENT MALFUNCTIONS	46	55	60	57	4.28	5.83
G221 INSTALL EQUIPMENT SHOCK MOUNTS	66	74	71	59	3.60	3.41
G251 SET UP FLIGHTLINE MAINTENANCE STANDS	74	79	81	63	3.76	2.64

\* Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00



TABLE 31

455X2B (SAC) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE*	TD**
	SURVEY DATA	PROF CODE	1ST JOB (C=108) (N=77)	1ST ENL (C=162) (N=114)	DAFSC 45552 (C=180) (N=205)	DAFSC 45572 (C=156) (N=174)		
13g VHF AM/FM RADIO								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU								
H270 BENCH CHECK VHF AM/FM RECEIVER-TRANSMITTERS	C	2b	11	14	12	15	5.23	5.64
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS								
H276 ISOLATE MALFUNCTIONS IN VHF AM/FM SYSTEMS	C	2b	13	18	23	13	4.81	5.38
(3) REMOVE SRU OR COMPONENTS								
H290 REMOVE OR REPLACE VHF AM/FM RECEIVER-TRANSMITTER SUBASSEMBLIES	C	2b	8	12	11	10	4.05	4.62
(4) INSTALL SRU OR COMPONENTS								
H290 REMOVE OR REPLACE VHF AM/FM RECEIVER-TRANSMITTER SUBASSEMBLIES	C	2b	8	12	11	10	4.05	4.62

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 31 (CONTINUED)

455X2B (SAC) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	3LVL 1ST JOB (C=108) (N=77)	1ST ENL (C=162) (N=114)	PERCENT MEMBERS PERFORMING				TE* (C=156) (N=174)	TD** (C=180) (N=205)	RATING
					DAFSC 45552	DAFSC 45572	DAFSC 45572	DAFSC 45572			
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS H266 ALIGN VHF AM/FM RECEIVER-TRANSMITTERS	C	2b	10	14	13	12	12	12	4.92	6.03	
13h SECURE VOICE											
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU R575 BENCH CHECK SECURE VOICE SYSTEM ENCRYPTION UNITS	C	-	2	6	4	3	3	3	2.49	5.14	
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS R578 ISOLATE MALFUNCTIONS IN SECURE VOICE SYSTEM CONTROLS	C	-	6	8	11	7	7	7	2.32	5.05	
(3) REMOVE SRU OR COMPONENTS R592 REMOVE OR REPLACE SECURE VOICE SYSTEM ENCRYPTION UNIT SUBASSEMBLIES	C	-	2	6	4	4	4	4	2.25	4.42	

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 31 (CONTINUED)

455X2B (SAC) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE* RATING	TD** RATING
	SURVEY DATA	3LVL PROF CODE	1ST JOB (C=108) (N=77)	1ST ENL (C=162) (N=114)	DAFSC 45552 (C=180) (N=205)	DAFSC 45572 (C=156) (N=174)		
(4) INSTALL SRU OR COMPONENTS R592 REMOVE OR REPLACE SECURE VOICE SYSTEM ENCRYPTION UNIT SUBASSEMBLIES	C	-	2	6	4	4	2.25	4.42
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS R571 ADJUST SECURE VOICE SYSTEM ENCRYPTION UNITS	C	-	5	9	8	6	2.14	5.41
131 AFSATCOM								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU S605 BENCH CHECK AFSATCOM CONTROLS	C	-	12	11	13	10	1.40	5.91
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS S616 ISOLATE MALFUNCTIONS IN AFSATCOM CONTROLS	C	-	15	16	19	19	1.37	6.13

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
\*\* Average TD Rating is 5.00

TABLE 31 (CONTINUED)

455X2B (SAC) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	PERCENT MEMBERS PERFORMING					TE*	TD**
			3LVL	1ST JOB	1ST ENL	DAFSC	DAFSC		
			(C=108)	(C=162)	(C=180)	(C=156)	(N=174)	RATING	RATING
			(N=77)	(N=114)	(N=205)	(N=174)			
(3) REMOVE SRU OR COMPONENTS		-							
S642 REMOVE OR REPLACE AFSATCOM LOGIC	C		8	9	14	10		1.15	5.60
POWER SUPPLY SUBASSEMBLIES									
(4) INSTALL SRU OR COMPONENTS		-							
S642 REMOVE OR REPLACE AFSATCOM LOGIC	C		8	9	14	10		1.15	5.60
POWER SUPPLY SUBASSEMBLIES									
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS		-							
S692 ALIGN AFSATCOM TELEPRINTERS	C		9	9	12	9		1.23	6.71
14f VHF AM/FM RADIO									
(2) ISOLATE MALFUNCTIONS		-							
H263 ADJUST VERY HIGH FREQUENCY (VHF)									
AMPLITUDE AND FREQUENCY MODULATED									
(AM/FM) RADIO SYSTEMS	C		7	10	12	11		3.78	5.60

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 31 (CONTINUED)

455X2B (SAC) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	1ST JOB (C=108) (N=77)	1ST ENL (C=162) (N=114)	PERCENT MEMBERS PERFORMING		TE*	TD**
					DAFSC 45552 (C=180) (N=205)	DAFSC 45572 (C=156) (N=174)		
14H COCKPIT VOICE RECORDER								
(1) PERFORM OPERATIONAL CHECKS R582 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING COCKPIT VOICE	C	-	7	8	9	4	2.03	4.39
(2) ISOLATE MALFUNCTIONS R577 ISOLATE MALFUNCTIONS IN COCKPIT VOICE RECORDER SYSTEMS	C	-	6	7	8	2	2.07	4.65
(3) REMOVE SYSTEM LRU R589 REMOVE OR REPLACE COCKPIT VOICE RECORDER SYSTEM RECORDERS	C	-	4	4	7	3	1.81	3.62
(4) INSTALL SYSTEM LRU R589 REMOVE OR REPLACE COCKPIT VOICE RECORDER SYSTEM RECORDERS	C	-	4	4	7	3	1.81	3.62

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
 \*\* Average TD Rating is 5.00

TABLE 31 (CONTINUED)

455X2B (SAC) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	14j PUBLIC ADDRESS	SURVEY DATA	3LVL PROF CODE	PERCENT MEMBERS PERFORMING				TE* RATING	TD** RATING
				1ST JOB (C=108) (N=77)	1ST ENL (C=162) (N=114)	DAFSC 45552 (C=180) (N=205)	DAFSC 45572 (C=156) (N=174)		
(1) PERFORM OPERATIONAL CHECKS M425 OPERATIONALLY CHECK PA SYSTEM		C	-	11	12	13	7	3.55	3.51
(2) ISOLATE MALFUNCTIONS M424 ISOLATE MALFUNCTIONS IN PA SYSTEMS		C	-	7	9	10	4	3.38	4.94
(3) REMOVE SYSTEM LRU M430 REMOVE OR REPLACE PA LOUDSPEAKERS		C	-	12	9	13	5	2.60	3.62
(4) INSTALL SYSTEM LRU M430 REMOVE OR REPLACE PA LOUDSPEAKERS		C	-	12	9	13	5	2.60	3.62

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 32

455X2B STS (SAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	3LVL 1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	PERCENT MEMBERS PERFORMING				TE*	TD**
					DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	DAFSC 45572 (C=159) (N=212)	DAFSC 45572 (C=159) (N=212)		
14c(3) (INTERPHONE) REMOVE SYSTEM LRU	-									
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	C		66	65	68	56	4.07	3.56		
14c(4) (INTERPHONE) INSTALL SYSTEM LRU	-									
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	C		66	65	68	56	4.07	3.56		
141(1) (DIRECTION FINDERS)	-									
N460 REMOVE OR INSTALL TACAN CONTROL BOX SUBASSEMBLIES	C		32	33	32	31	3.07	4.37		
141(2) (DIRECTION FINDERS) ISOLATE MALFUNCTIONS	-									
N459 REMOVE OR INSTALL TACAN CONTROL BOX COMPONENTS	C		30	31	34	28	3.00	5.55		

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)  
 \*\* Average TD Rating is 5.00

TABLE 32 (CONTINUED)

455X2B STS (SAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING							
	SURVEY DATA	3LVL 1ST JOB 1ST ENL PROF (C=105) (C=166) CODE (N=93) (N=152)	DAFSC				TE*	TD**
			DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	DAFSC 45572 (C=159) (N=212)	RATING		
14m(3) (IFF TRANSPONDER) REMOVE SYSTEM LRU	-	-						
U951 REMOVE OR INSTALL IFF/AIMS CONTROL BOXES	N	56	57	61	45	3.14	3.46	
14m(4) (IFF TRANSPONDER) INSTALL SYSTEM LRU	-	-						
U951 REMOVE OR INSTALL IFF/AIMS CONTROL BOXES	N	56	57	61	45	3.14	3.46	
14n(3) (IFF MODE IV COMPUTERS) REMOVE SYSTEM LRU	-	-						
U960 REMOVE OR INSTALL IFF/AIMS KIT COMPUTERS	N	69	66	60	44	3.09	3.11	
14n(4) (IFF MODE IV COMPUTER) INSTALL SYSTEM LRU	-	-						
U960 REMOVE OR INSTALL IFF/AIMS KIT COMPUTERS	N	69	66	60	44	3.09	3.11	
14o(2) (RADAR ALTIMETERS) ISOLATE MALFUNCTIONS	-	-						
L391 ISOLATE MALFUNCTIONS IN RRA SYSTEMS	N	49	47	46	35	4.41	5.95	

N = Navigation Systems survey data used for support

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00



TABLE 32 (CONTINUED)

455X2B STS (SAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	PERCENT MEMBERS PERFORMING				TE*	TD**
					DAFSC 45552	DAFSC 45572	(C=235) (N=268)	(C=159) (N=212)		
14o(3) (RADAR ALTIMETERS) REMOVE SYSTEM LRU	-									
L412 REMOVE OR INSTALL RRA RT UNITS	N		56	55	56	40			3.34	4.02
14o(4) (RADAR ALTIMETERS) INSTALL SYSTEM LRU	-									
L412 REMOVE OR INSTALL RRA RT UNITS	N		56	55	56	40			3.34	4.02
14p(2) (TACAN) ISOLATE MALFUNCTIONS	-									
M443 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	N		45	42	43	38			4.66	5.25
14p(3) (TACAN) REMOVE SYSTEM LRU	-									
M483 REMOVE OR INSTALL TACAN RT UNITS	N		69	67	64	49			3.33	3.19
14p(4) (TACAN) INSTALL SYSTEM LRU	-									
M483 REMOVE OR INSTALL TACAN RT UNITS	N		69	67	64	49			3.33	3.19

N = Navigation Systems survey data used for support

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 32 (CONTINUED)

455X2B STS (SAC) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE*	TD**
	SURVEY DATA	3LVL 1ST JOB PROF (C=105) CODE (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	RATING		
14q(3) (VOR) REMOVE SYSTEM LRU	-							
I302 REMOVE OR INSTALL VOR RECEIVERS	N	58	59	60	45	3.47	3.53	
14q(4) (VOR) INSTALL SYSTEM LRU	-							
I302 REMOVE OR INSTALL VOR RECEIVERS	N	58	59	60	45	3.47	3.53	
14r(3) (ILS) REMOVE SYSTEM LRU	-							
J331 REMOVE OR INSTALL GLIDESLOPE RECEIVERS	N	66	63	62	47	3.52	3.42	
14r(4) (ILS) INSTALL SYSTEM LRU	-							
J331 REMOVE OR INSTALL GLIDESLOPE RECEIVERS	N	66	63	62	47	3.52	3.42	

N = Navigation Systems survey data used for support

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 33

EXAMPLES OF COMMUNICATIONS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 455X2B (SAC) STS

TASK	PERCENT MEMBERS PERFORMING					TE* RATING	TD** RATING
	1ST JOB (N=108)	1ST ENL (N=162)	DAFSC 32851 (N=180)	DAFSC 32871 (N=156)			
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	41	43	39	30		6.10	5.94
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	63	64	67	56		3.79	3.12
F174 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS TEST EQUIPMENT	24	26	34	23		4.73	4.86
F200 SET UP FLIGHTLINE MAINTENANCE STANDS	47	49	57	49		3.66	2.86
L400 ISOLATE MALFUNCTIONS IN INTERPHONE	41	43	47	27		4.73	4.86

\* Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 34

EXAMPLES OF NAVIGATION SYSTEMS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 455X2B (SAC) STS

TASK	PERCENT MEMBERS PERFORMING				TE* RATING	TD** RATING
	1ST JOB (N=77)	1ST ENL (N=111)	DAFSC 32851 (N=205)	DAFSC 32871 (N=174)		
F161 OPEN RADOMES	53	49	57	41	3.34	3.69
F162 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	55	55	59	51	4.10	4.00
G214 IDENTIFY TEST EQUIPMENT MALFUNCTIONS	40	49	67	60	4.28	5.83
G219 INSPECT PARTS RECEIVED FROM SUPPLY	81	83	83	70	3.86	3.62
F154 CLOSE RADOMES	48	46	55	37	2.97	4.13
G241 REMOVE OR INSTALL AIRCRAFT INSPECTION PANELS	38	39	40	38	3.09	3.01
G251 SET UP FLIGHTLINE MAINTENANCE STANDS	64	63	64	49	3.76	2.64
G213 GROUND SYSTEM COMPONENTS	22	25	34	28	3.41	4.55
G197 ADJUST AVIONIC PRESSURIZATION SYSTEMS	29	32	43	33	2.31	4.55

\* Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

455X2C STS. This STS was written for personnel in the Tactical Air Forces (TAF), made up of personnel belonging to all major commands except MAC and SAC. It gives information on the systems collectively maintained by these personnel and provides a generalized and comprehensive coverage of the type work performed in the field by TAF personnel. It includes two additional paragraphs: 17, General Aircraft Tasks, and 18, Aircraft Support Equipment. These paragraphs were not matched with tasks from the AFSCs 328X0 or 328X1 surveys. Survey data provide support for inclusion of the other major paragraphs and most of their subparagraphs. There are, however, some areas that should be reviewed by training personnel and TAF subject-matter experts.

Table 35 provides data on systems that need review. Subparagraphs 13f(1), 13f(3), 13f(4), 13g(1), 13g(3), 13g(4), and 13g(6) have 3-skill level proficiency codes of 2b or b. However, none of them have a task matched which reflects 30 percent performing for 3-skill level personnel. Subparagraph 13f(6) does not have 20 percent performing in any of the target groups. These subparagraphs should be considered for at least having the proficiency codes changed to dashes. The POI impact will be discussed in that section. Systems listed at 13h, 13j, and 13l have subparagraphs that are not supported by matched tasks showing 20 or more percent performing at any level. These subparagraphs should be reviewed to determine if retention in the STS is warranted.

Table 36 shows 16 subparagraphs of this STS that should be reviewed for potential upgrade of the 3-skill level proficiency code, from a dash to a more definitive training proficiency code. All of these paragraphs have tasks matched which indicate greater than 30 percent of first-job or first-enlistment personnel performing them. A representative task has been provided on the table.

Examples of technical tasks not matched to any element of the STS which show at least 20 percent performance by one of the target groups are listed in Tables 37 (Communications) and 38 (Navigation Systems). Potential task concentration around specific functions or jobs was reviewed and no particular trends were noted. Training personnel and TAF subject-matter experts should review these and other eligible unreferenced tasks to determine if the areas they cover are justified for inclusion in the STS.

#### Plan of Instruction (POI)

The Avionic Communication and Navigation Systems, POIs E3ABR45532A-000 (MAC Active), E3ABR45532A-001 (MAC Reserve/National Guard (RES)), E3ABR45532B-000 (SAC), and E3ABR45532C-000 (TAF), all dated 20 May 1988, were used for matching. Each POI calls for a different length of course. MAC active personnel have a 146-day course, the MAC Reserve personnel 165 days, SAC personnel 164 days, and TAF personnel 142 days. These POIs have blocks of instruction that are varied based on the needs and desires of the major groups. The blocks of instruction are divided into volumes that incorporate the training of specific portions of the different POIs of the MAJCOM groups. There are 19 volumes dealing with the AFSC-specific technical areas. There are additional blocks of instruction on electronic principles, which are the

TABLE 35

455X2C (TAF) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL PROF CODE	PERCENT MEMBERS PERFORMING				TE*	TD**
			1ST JOB (C=97) (N=98)	1ST ENL (C=193) (N=149)	DAFSC 45552 (C=290) (N=300)	DAFSC 45572 (C=263) (N=263)		
13f HF RADIOS								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU								
K359 BENCH CHECK HF RECEIVER-TRANSMITTERS	C	2b	19	20	23	21	5.97	6 22
(3) REMOVE SRU OR COMPONENTS								
K385 REMOVE OR REPLACE HF RECEIVER-TRANSMITTER SUBASSEMBLIES	C	b	19	20	23	27	4.47	4.76
(4) INSTALL SRU OR COMPONENTS								
K385 REMOVE OR REPLACE HF RECEIVER-TRANSMITTER SUBASSEMBLIES	C	b	19	20	23	27	4.47	4.76
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS								
K351 ALIGN HF COUPLERS	C	-	16	16	14	11	5.11	4.62

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 35 (CONTINUED)

455X2C (TAF) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	3LVL PROF CODE	PERCENT MEMBERS PERFORMING				TE* RATING	TD** RATING
			1ST JOB (C=97) (N=98)	1ST ENL (C=193) (N=149)	DAFSC 45552 (C=290) (N=300)	DAFSC 45572 (C=263) (N=263)		
13g VHF AM/FM RADIO								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU								
H270 BENCH CHECK VHF AM/FM RECEIVER-TRANSMITTERS	C	2b	21	21	23	17	5.23	5.64
(3) REMOVE SRU OR COMPONENTS								
H290 REMOVE OR REPLACE VHF AM/FM RECEIVER-TRANSMITTER SUBASSEMBLIES	C	2b	21	18	20	16	4.05	4.62
(4) INSTALL SRU OR COMPONENTS								
H290 REMOVE OR REPLACE VHF AM/FM RECEIVER-TRANSMITTER SUBASSEMBLIES	C	2b	21	18	20	16	4.05	4.62
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS								
H266 ALIGN VHF AM/FM RECEIVER-TRANSMITTERS	C	2b	20	20	21	17	4.92	6.03

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 35 (CONTINUED)

455X2C (TAF) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE*	TD**
	SURVEY DATA	PROF CODE	1ST JOB (C=97) (N=98)	1ST ENL (C=193) (N=149)	DAFSC 45552 (C=290) (N=300)	DAFSC 45572 (C=263) (N=263)	RATING	RATING
13h SECURE VOICE								
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU	-							
R575 BENCH CHECK SECURE VOICE SYSTEM ENCRYPTION UNITS	C		1	3	7	5	2.49	5.14
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS								
R578 ISOLATE MALFUNCTIONS IN SECURE VOICE SYSTEM CONTROLS	C		7	7	9	7	2.32	5.05
(3) REMOVE SRU OR COMPONENTS								
R592 REMOVE OR REPLACE SECURE VOICE SYSTEM ENCRYPTION UNIT SUBASSEMBLIES	C		4	7	7	5	2.25	4.42
(4) INSTALL SRU OR COMPONENTS								
R592 REMOVE OR REPLACE SECURE VOICE SYSTEM ENCRYPTION UNIT SUBASSEMBLIES	C		4	7	7	5	2.25	4.42

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00



TABLE 35 (CONTINUED)

455X2C (TAF) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	SURVEY DATA	PROF CODE	3LVL 1ST JOB (C=97) (N=98)	1ST ENL (C=193) (N=149)	PERCENT MEMBERS PERFORMING				TE*	TD**
					DAFSC 45552 (C=290) (N=300)	DAFSC 45572 (C=263) (N=263)				
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS R571 ADJUST SECURE VOICE SYSTEM ENCRYPTION UNITS	C	-	3	5	7	6			2.14	5.41
13j EMERGENCY RADIOS										
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU P547 BENCH CHECK ER	C	-	19	22	20	11			3.01	4.85
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS P549 ISOLATE MALFUNCTIONS IN ER	C	-	11	10	11	6			2.59	4.71
(3) REMOVE SRU OR COMPONENTS P552 REMOVE OR REPLACE ER BATTERIES	C	-	10	11	10	7			2.26	2.63
(4) INSTALL SRU OR COMPONENTS P552 REMOVE OR REPLACE ER BATTERIES	C	-	10	11	10	7			2.26	2.63

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 35 (CONTINUED)

455X2C (TAF) STS ELEMENTS REQUIRING REVIEW  
(NOT SUPPORTED)

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING							TE* RATING	TD** RATING
	SURVEY DATA	3LVL PROF CODE	1ST JOB (C=97) (N=98)	1ST ENL (C=193) (N=149)	DAFSC	DAFSC			
					45552 (C=290) (N=300)	45572 (C=263) (N=263)			
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS P546 ALIGN EMERGENCY RADIOS (ER)	C	-	6	7	9	7	2.49	4.92	
131 DIRECTION FINDERS									
(1) ACCOMPLISH MINIMUM PERFORMANCE CHECKS OF SYSTEM LRU N442 BENCH CHECK UHF DF ANTENNAS	C	-	6	11	11	12	3.18	5.41	
(2) ISOLATE MALFUNCTIONS TO SRU OR COMPONENTS N452 ISOLATE MALFUNCTIONS IN UHF DF ANTENNAS	C	-	7	13	12	11	3.08	5.89	
(3) REMOVE SRU OR COMPONENTS N464 REMOVE OR REPLACE UHF DF AMPLIFIERS	C	-	10	11	15	17	2.47	4.15	
(4) INSTALL SRU OR COMPONENTS N464 REMOVE OR REPLACE UHF DF AMPLIFIERS	C	-	10	11	15	17	2.47	4.15	
(6) ADJUST SYSTEM LRU TO TO SPECIFICATIONS N436 ALIGN UHF DF ANTENNAS	C	-	7	10	9	10	3.53	5.63	

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 36

455X2C STS (TAF) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING									
	DATA	CODE	SURVEY PROF (C=105) (N=93)	3LVL 1ST JOB (C=166) (N=152)	1ST ENL (C=235) (N=268)	DAFSC 45552 (C=159) (N=212)	DAFSC 45572 (C=159) (N=212)	TE*	TD**	RATING
14c(3) (INTERPHONE) REMOVE SYSTEM LRU	-									
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	C		82	82	77	53		4.07	3.56	
14c(4) (INTERPHONE) INSTALL SYSTEM LRU	-									
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	C		82	82	77	53		4.07	3.56	
14d(3) (UHF RADIO) REMOVE SYSTEM LRU	-									
G246 REMOVE OR REPLACE UHF CONTROL UNITS	C		84	78	67	46		4.11	3.50	
14d(4) (UHF RADIO) INSTALL SYSTEM LRU	-									
G246 REMOVE OR REPLACE UHF CONTROL UNITS	C		84	78	67	46		4.11	3.50	
14e(2) (HF RADIO) ISOLATE MALFUNCTIONS	-									
K367 ISOLATE MALFUNCTIONS IN HF SYSTEMS	C		33	32	33	24		5.85	6.00	

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 36 (CONTINUED)

455X2C STS (TAF) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING						TE*	TD**
	SURVEY DATA	3LVL PROF CODE	1ST JOB (C=105) (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
14e(3) (HF RADIO) REMOVE SYSTEM LRU	-	-	-	-	-	-	-	-
K373 REMOVE OR REPLACE HF CONTROL UNITS	C	-	37	36	38	28	4.04	3.53
14e(4) (HF RADIO) INSTALL SYSTEM LRU	-	-	-	-	-	-	-	-
K373 REMOVE OR REPLACE HF CONTROL UNITS	C	-	37	36	38	28	4.04	3.53
14f(3) (VHF AM/FM RADIO) REMOVE SYSTEM LRU	-	-	-	-	-	-	-	-
H291 REMOVE OR REPLACE VHF AM/FM RECEIVER- TRANSMITTERS	C	-	45	35	42	25	3.86	3.91
14f(4) (VHF AM/FM RADIO) INSTALL SYSTEM LRU	-	-	-	-	-	-	-	-
H291 REMOVE OR REPLACE VHF AM/FM RECEIVER- TRANSMITTERS	C	-	45	35	42	25	3.86	3.91

C = Communication survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 36 (CONTINUED)  
455X2C STS (TAF) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING									
	SURVEY DATA	3LVL 1ST JOB PROF (C=105) (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)	TE*	TD**	RATING		
14n(3) (VOR) REMOVE SYSTEM LRU	-									
I302 REMOVE OR INSTALL VOR RECEIVERS	N	70	70	68	44	3.47	3.53			
14n(4) (VOR) INSTALL SYSTEM LRU	-									
I302 REMOVE OR INSTALL VOR RECEIVERS	N	70	70	68	44	3.47	3.53			
14q(3) (ILS) REMOVE SYSTEM LRU	-									
J331 REMOVE OR INSTALL GLIDESLOPE RECEIVERS	N	68	70	66	46	3.52	3.42			
14q(4) (ILS) INSTALL SYSTEM LRU	-									
J331 REMOVE OR INSTALL GLIDESLOPE RECEIVERS	N	68	70	66	46	3.52	3.42			
14r(1) (ADF) PERFORM OPERATIONAL CHECK	-									
O605 OPERATIONALLY CHECK ADF SYSTEMS	N	37	36	31	25	3.71	4.52			

N = Navigation Systems survey data used for support

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)  
\*\* Average TD Rating is 5.00

TABLE 36 (CONTINUED)

455X2C STS (TAF) ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	PERCENT MEMBERS PERFORMING					TE*	TD**
	SURVEY DATA	3LVL 1ST JOB PROF (C=105) CODE (N=93)	1ST ENL (C=166) (N=152)	DAFSC 45552 (C=235) (N=268)	DAFSC 45572 (C=159) (N=212)		
14r(3) (ADF) REMOVE SYSTEM LRU	-						
0625 REMOVE OR INSTALL ADF RECEIVERS	N	31	32	27	25	2.48	3.63
14r(4) (ADF) INSTALL SYSTEM LRU	-						
0625 REMOVE OR INSTALL ADF RECEIVERS	N	31	32	27	25	2.48	3.63

N = Navigation Systems survey data used for support

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 37

EXAMPLES OF COMMUNICATIONS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 455X2C (TAF) STS

TASK	PERCENT MEMBERS PERFORMING					TE* RATING	TD** RATING
	1ST JOB (N=97)	1ST ENL (N=193)	DAFSC 32850 (N=290)	DAFSC 32870 (N=263)			
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	45	48	46	35		6.01	5.94
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	88	81	72	49		3.79	3.12
F180 OPERATE SUPPORT EQUIPMENT, SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	77	77	71	49		3.89	3.86
F218 BENCH CHECK UHF RECEIVER-TRANSMITTERS	44	46	43	36		6.19	5.64
F236 PRESET FREQUENCIES IN UHF CONTROL UNITS	85	85	80	43		4.63	2.91
F182 PERFORM OPERATIONAL CHECKS OF AVIONIC PRESSURIZED COMPONENTS	29	26	58	46		3.59	4.11
F200 SET UP FLIGHTLINE MAINTENANCE STANDS	59	60	58	46		3.03	2.29

\* Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 38

EXAMPLES OF NAVIGATION SYSTEMS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 455X2C (TAF) STS

TASK	PERCENT MEMBERS PERFORMING				TE* RATING	TD** RATING
	1ST JOB (N=97)	1ST ENL (N=193)	DAFSC 32851 (N=290)	DAFSC 32871 (N=263)		
F161 OPEN RADOMES	44	47	47	32	3.34	3.69
G214 IDENTIFY TEST EQUIPMENT MALFUNCTIONS	39	44	53	46	4.28	5.83
G221 INSTALL EQUIPMENT SHOCK MOUNTS	44	48	51	37	3.60	3.41
U940 KEY IFF/AIMS	52	54	51	40	2.79	3.30
F154 CLOSE RADOMES	43	46	46	29	2.97	4.13
G238 PERFORM OPERATIONAL CHECKS OF AVIONIC PRESSURIZATION SYSTEMS	24	27	26	21	2.83	4.09
G239 PERFORM TIME COMPLIANCE TECHNICAL ORDER (TC TO) MODIFICATIONS ON AVIONIC SYSTEMS	33	40	49	39	3.02	5.98
G241 REMOVE OR INSTALL AIRCRAFT INSPECTION PANELS	31	35	43	37	3.09	3.01

\* Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00



same for all command groups. The 19 volumes contain the AFSC-specific training requirements broken down by subject matter, depth of instruction, and desires of major command groups. All POIs include the blocks of instruction found in Volumes I through X. Volume XI includes blocks of instruction from the MAC, RES, and SAC POI. Volumes XII, XXVII, and XIX are TAF POI blocks of instruction. Volume XIII includes only RES POI material, while Volume XIV has only SAC POI blocks. Volumes XV (MAC) and XVI (SAC/RES) include the exact same blocks of material as the previously mentioned Volume XVII, but due to the sequence of classes desired by the MAJCOM groups, they are separate. Volume XVIII contains SAC and RES POI blocks.

A composite computer product of all Avionic Communication and Navigation Systems POIs was generated, and Technical school subject-matter experts matched the tasks from each survey to this document. The matched information presented includes the learning objectives, tasks matched, and percent performing of all 1-24 and 1-48 months TAFMS respondents, first-job and first-enlistment for the MAJCOM groups, TE, TD, and Automated Training Indicator (ATI) values. The command group data are necessary so that the different POIs can be accurately reviewed.

Review of tasks matched to the POIs reveals that most POI blocks and units of instruction are well supported by survey data based on percentages of first-enlistment personnel performing tasks or high TE or TD ratings for pertinent tasks. There are eight units of instruction, however, which contain objectives that apparently are not totally supported by survey data and require further evaluation by training personnel and subject-matter experts (see display in Table 39). These areas are related to the ones mentioned in the STS section. Volume III, Block XII, elements 4a and 4b, as they pertain to SAC personnel, are not supported by 30 percent performance on the matched tasks. This accounts for 28 hours training. Volume IV, Block XIII, elements 8a, 8b, 8c, and 8d, as they apply to TAF personnel, are not supported by 30 percent performance on the matched tasks. This accounts for 21 hours. Volume XVIII, Block XXIII, element 1j, as far as SAC personnel are concerned, does not meet the 30 percent performance criteria. This is a SAC/NG POI and the other command groups are not a part of this training. This accounts for 3 hours training time. Volume XIX, Block XXIIC, element 2g, does not have a task matched with it that shows 30 percent performance by TAF personnel. This is a TAF only POI and accounts for 3 hours training time.

There are a few tasks with high TE ratings, sufficiently high TD ratings, and 30 percent or more first-job or first-enlistment personnel performing that were not matched to any POI blocks of instruction. Many of these are general in nature and may be part of the electronic principles blocks of the POI. Tables 40 (Communications) and 41 (Navigations Systems) list examples of these tasks.

### Electronic Principles

As previously mentioned, each STS has an Electronic Fundamentals/Applications Attachment to it. The information in this attachment was analyzed against the Electronic Principles Inventory (EPI) data for personnel

TABLE 39

POI BLOCKS REFLECTING LOW FIRST-ENLISTMENT TASK PERFORMANCE  
(LESS THAN 30 PERCENT RESPONDING)

POI BLOCK UNIT	REFERENCE TIME (HOURS)	SURVEY DATA	MAJOR COMMAND	SELECTED SAMPLE TASKS	PERCENT MEMBERS			
					1ST JOB	1ST ENL	TE* RATING	TD** RATING
XII 4a	12	C	SAC	H270 BENCH CHECK VHF AM/FM RECEIVER- TRANSMITTERS	11	14	5.23	5.64
XII 4b	16	C	SAC	H276 ISOLATE MALFUNCTIONS IN VHF AM/FM SYSTEMS	13	18	4.81	5.36
XIII 8a	2	C	TAF	K359 BENCH CHECK HF RECEIVER- TRANSMITTERS	19	20	5.97	6.22
XIII 8b	3	C	TAF	K354 BENCH CHECK HF CONTROL UNITS	13	16	5.52	4.84
XIII 8c	14	C	TAF	K359 BENCH CHECK HF RECEIVER- TRANSMITTERS	19	20	5.97	6.22
XIII 8d	2	C	TAF	K356 BENCH CHECK HF COUPLERS	13	15	5.90	5.60
XXIII 1j	3	N	SAC	T887 OPERATIONALLY CHECK AIRBORNE INTERROGATOR SYSTEMS USING FLIGHTLINE TEST EQUIPMENT (FTE)	25	18	1.07	6.02
XXIIC 2g	3	C	TAF	K369 OPERATIONALLY CHECK HF SYSTEM USING FLIGHTLINE TEST EQUIPMENT	26	24	5.04	4.61

C = Communication survey data used for support

N = Navigation Systems survey data used for support

\* C Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\* N Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

TABLE 40

EXAMPLES OF COMMUNICATIONS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 45532 POI

TASK	1ST JOB (N=105)	1ST ENL (N=166)	TE* RATING	TD** RATING
F110 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	55	58	5.74	3.40
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	52	54	6.10	5.94
F164 CLEAN COMPONENTS OR PARTS	79	75	5.29	3.69
F169 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	61	66	4.75	3.30
F171 INVENTORY CONSOLIDATED TOOL KITS (CTK)	68	71	4.70	2.74
F173 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS MOCKUPS	48	50	5.63	5.72
F180 OPERATE SUPPORT EQUIPMENT, SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS				
F181 PERFORM CORROSION CONTROL ON AVIONIC EQUIPMENT	69	71	3.89	3.86
F182 PERFORM OPERATIONAL CHECKS OF AVIONIC PRESSURIZED COMPONENTS	67	70	4.88	3.53
F184 PERFORM TIME COMPLIANCE TECHNICAL ORDER (TCTO) MODIFICATIONS ON AVIONIC SYSTEMS	37	38	3.59	4.11
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	65	69	4.00	6.12
F186 REMOVE OR REPLACE AVIONIC MOUNTS	77	77	3.79	3.12
F187 REMOVE OR REPLACE AVIONIC SYSTEM COAXIAL CABLES	74	75	3.93	4.19
F193 REMOVE OR REPLACE AVIONIC SYSTEMS MOCKUP LRU	79	80	5.11	4.97
	51	53	4.90	3.66

\* Mean Rating is 2.12 and Standard Deviation is 1.55 (High TE = 3.67)

\*\* Average TD Rating is 5.00

TABLE 41

EXAMPLES OF NAVIGATION SYSTEMS TECHNICAL TASKS  
PERFORMED NOT REFERENCED TO 45532 POI

<u>TASK</u>	<u>1ST JOB (N=93)</u>	<u>1ST ENL (N=152)</u>	<u>TE* RATING</u>	<u>TD** RATING</u>
E104 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	67	70	6.64	3.57
E110 LOCATE STOCK NUMBERS ON MICROFICHE	70	75	6.43	3.23
F161 OPEN RADOMES	56	57	3.34	3.69
F162 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER	72	73	4.10	4.00
G207 CLEAN CIRCUITRY COMPONENTS	50	52	3.98	3.21
G214 IDENTIFY TEST EQUIPMENT MALFUNCTIONS	42	50	4.28	5.39
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	84	86	4.12	3.39
G218 INSPECT PARTS RECEIVED FROM MANUFACTURERS	57	61	3.28	3.58
G219 INSPECT PARTS RECEIVED FROM SUPPLY	82	85	3.86	3.62
G220 INSPECT WAVEGUIDES FOR CORROSION OR MOISTURE	64	67	4.60	3.53
G226 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS COAXIAL CABLES	73	78	5.52	6.02
G235 PERFORM CORROSION CONTROL ON AVIONIC EQUIPMENT	67	70	4.25	3.66
G255 TEST AND EVALUATE AVIONIC EQUIPMENT	68	72	4.86	5.72
G256 TEST CONTINUITY OF AVIONIC SYSTEM CABLES	74	78	5.86	4.25

\* Mean Rating is 1.66 and Standard Deviation is 1.43 (High TE = 3.09)

\*\* Average TD Rating is 5.00

with a DAFSC of 32850, 32851, and 32854. The information on AFSC 32854 personnel was included in the analysis because a portion of that AFSC was included in the merger resulting in the establishment of AFSC 455X2. The EPI is a knowledge-based inventory containing 1,366 questions in 63 electronic-related subject areas. It identifies the range of electronic principles personnel must understand to perform any electronics-oriented job.

Two hundred and thirty-seven personnel with DAFSC 32850, 286 personnel with DAFSC 32851, and 222 personnel with DAFSC 32854 completed the EPI in the fall of 1988. These data were used to analyze the EPI sections of the STSs. Most of the electronic principles areas for AFSC 455X2 STS are well supported by the EPI data. There are, however, 13 areas where data do not support the proficiency code listed (see Table 42). There are also data showing 32 areas where greater than 30 percent of incumbents for at least one of the AFSCs answering positively, but the proficiency code is dashed. These areas are displayed in Table 43. There are tasks not referenced in the STS that have greater than 30 percent performing that are shown in Table 44.

The Electronic Fundamentals/Application section of the POIs were not available for analysis; however, a separate report for the Keesler Technical Center will be available in the near future. Based on the information from the STS analysis, training personnel should pay particular attention to the Electronic Fundamentals/Applications POI section for possible refinements to the AFSC 45532 courses.

## JOB SATISFACTION ANALYSIS

Examination of the job satisfaction indicators for various groups gives career ladder managers a better understanding of some of the factors which may impact on job performance of airmen in the career ladder. Attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet. The information from these questions is provided in Tables 45 through 49. In Table 45, job satisfaction data is presented showing data for TAFMS groups matched with similar data for a comparative sample of Mission Equipment Maintenance career ladders surveyed in 1987. These data can give a relative measure of how job satisfaction of AFSC 455X2 (328X0 and 328X1) personnel compare with that of other similar specialties. An indication of how job satisfaction perceptions within the career ladder have changed over time is provided in Tables 46 (AFSC 328X0) and 49 (AFSC 328X1), where data for TAFMS groups from these surveys are compared to those of the previous survey conducted in 1981. To provide a base line for the merged AFSC, the job satisfaction of the three MAJCOM groups personnel were reviewed. The results for the TAFMS groups are in Tables 48 (AFSC 328X0) and 50 (AFSC 328X1). Finally, Tables 48 (AFSC 328X0) and 51 (AFSC 328X1) provide data on personnel in the specialty jobs discussed in the SPECIALTY JOBS section of this report. An examination of the data may show how overall job satisfaction may be influenced by the type of job performed.

TABLE 42

ELECTRONIC PRINCIPLES STS ELEMENTS  
REFLECTING LOW TASK PERFORMANCE  
(LESS THAN 30 PERCENT RESPONDING)

POI REFERENCE BLOCK UNIT/SELECTED SAMPLE TASKS	PROF CODE	PERCENT MEMBERS		
		DAFSC 32850 (N=237)	DAFSC 32851 (N=286)	DAFSC 32854 (N=222)
41. DIGITAL LOGIC FUNCTIONS (MAIN LOGIC GATES AND FLIP-FLOPS)				
41c. TROUBLESHOOT CIRCUITS	2b			
G416 DO YOU TROUBLESHOOT DIGITAL SYSTEMS, SUBSYSTEMS OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS OR IC		8	19	21
41d. LOGIC FAMILIES (TTL AND CMOS)	B			
G438 DO YOU PERFORM TASKS ON RTL (RESISTOR TRANSISTOR LOGIC FORMALLY DCTL)		4	6	12
G439 DO YOU PERFORM TASKS ON DTL (DIODE TRANSISTOR LOGIC)		3	7	11
G440 DO YOU PERFORM TASKS ON TTL (TRANSISTOR TRANSISTOR LOGIC)		7	12	16
42. BOOLEAN EQUATIONS				
42a. DIAGRAM TO EQUATION	B			
G435 DO YOU DEVELOP BOOLEAN EQUATIONS FROM LOGIC CIRCUITS OR DIAGRAMS		7	7	14
42b. EQUATION TO DIAGRAM	B			
G436 DO YOU DEVELOP LOGIC DIAGRAMS FROM BOOLEAN EQUATIONS		6	6	14
45. LOGIC CIRCUITS: a. THEORY OF OPERATION				
45a(1). COUNTERS (SYNCHRONOUS/ASYNCHRONOUS-UP/DOWN COUNTERS)	B			
G488 DO YOU TRACE DATA FLOW THROUGH CIRCUITS CONTAINING COUNTERS		11	29	26

TABLE 42 (CONTINUED)

ELECTRONIC PRINCIPLES STS ELEMENTS  
REFLECTING LOW TASK PERFORMANCE  
(LESS THAN 30 PERCENT RESPONDING)

POI REFERENCE BLOCK UNIT/SELECTED SAMPLE TASKS	PROF CODE	PERCENT MEMBERS		
		DAFSC 32850 (N=237)	DAFSC 32851 (N=236)	DAFSC 32854 (N=222)
45a(2). REGISTERS (SHIFT AND STORAGE) G498 DO YOU TRACE DATA FLOW THROUGH CIRCUITS CONTAINING REGISTERS	B	10	10	20
45a(3). COMBINATIONAL LOGIC CIRCUITS (HALF-ADDER, FULL-ADDER, ENCODER, DECODER, MULTIPLEXER, DEMULTIPLEXER, COUNT DETECT) G503 DO YOU TRACE DATA FLOW THROUGH COMBINATIONAL LOGIC CIRCUITS	B	8	14	19
45b. ISOLATE FAULTY CIRCUITS G489 DO YOU TROUBLESHOOT COUNTER CIRCUITS TO ISOLATE A FAULTY COUNTER	2b	8	23	19
45c. TROUBLESHOOT CIRCUITS G490 DO YOU TROUBLESHOOT COUNTERS TO CIRCUIT LEVEL COMPONENTS	-	3	17	14
46. D/A, A/D CONVERTERS (APPROX D/A AND RAMP A/D)				
46a. THEORY OF OPERATION G516 DO YOU TRACE DATA FLOW THROUGH A/D CONVERTERS	B	13	19	33

TABLE 43

ELECTRONIC PRINCIPLES STS ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	3LVL PROF CODE	DAFSC 32850 (N=237)	DAFSC 32851 (N=286)	DAFSC 32854 (N=222)
5c. SOLENOID THEORY OF OPERATION	-			
A77 DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING SOLENOIDS		19	45	32
8b. (TRANSFORMERS) ISOLATE FAULTY TRANSFORMERS	-			
A36 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY TRANSFORMER		57	72	57
8c. (TRANSFORMERS) CALCULATIONS	-			
A37 DO YOU CALCULATE TRANSFORMER VOLTAGE OR CURRENT STEP-UP OR STEP-DOWN RATIOS		20	33	18
9b. (THREE PHASE TRANSFORMERS) ISOLATE FAULTY THREE PHASE TRANSFORMERS	-			
A43 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY THREE PHASE TRANSFORMER		29	40	29
10b. (DC MOTORS) ISOLATE FAULTY DC MOTORS	-			
A46 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY DC MOTOR		39	67	37
11b. (AC MOTORS) ISOLATE FAULTY AC MOTORS	-			
A50 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY AC MOTOR		29	60	41



TABLE 43 (CONTINUED)

ELECTRONIC PRINCIPLES STS ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	3LVL PROF CODE	DAFSC 32850 (N=237)	DAFSC 32851 (N=286)	DAFSC 32854 (N=222)
15a. (SYNCHRO/SERVOS) THEORY OF OPERATION	-			
A65 DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING SYNCHROS OR SERVOS		27	81	68
15b. ISOLATE FAULTY SYNCHRO/SERVOS	-			
A66 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY SYNCHRO OR SERVO		25	74	56
15c. TROUBLESHOOT SYNCHRO/SERVOS	-			
A67 DO YOU TROUBLESHOOT SYNCHRO OR SERVO COMPONENT PARTS		14	30	23
18b. ISOLATE FAULTY METER MOVEMENTS	-			
A81 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY METER MOVEMENT		25	50	23
21b. ISOLATE FAULTY INTEGRATED CIRCUITS	-			
A96 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY IC		24	45	41
23b. ISOLATE FAULTY TUBES	-			
A122 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY ELECTRON TUBE		38	55	18

TABLE 43 (CONTINUED)

ELECTRONIC PRINCIPLES STS ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	3LVL PROF CODE	DAFSC 32850 (N=237)	DAFSC 32851 (N=286)	DAFSC 32854 (N=222)
24b. ISOLATE FAULTY CRTs	-			
A137 DO YOU TROUBLESHOOT TO ISOLATE A FAULTY CRT		7	56	18
26c. MULTIPIN	-			
A149 DO YOU REPAIR OR FABRICATE CONNECTORS OR CABLES ON MULTICONDUCTOR CABLES		79	74	61
27m. TUBE TESTER	-			
B194 DO YOU USE TUBE TESTERS		23	40	10
38b. (LIMITER CIRCUITS) ISOLATE FAULTY LIMITERS	-			
F377 DO YOU TROUBLESHOOT TO ISOLATE A FAULTY LIMITER CIRCUIT		16	32	9
47b. (TRANSMISSION LINES) PERFORM MEASUREMENTS	-			
H526 DO YOU MEASURE STANDING WAVE RATIO (SWR) ON TRANSMISSION LINES		72	52	5
47d. ISOLATE FAULTY TRANSMISSION LINES	-			
H530 DO YOU TROUBLESHOOT TRANSMISSION LINES		69	48	11
48b. (WAVE GUIDES) ISOLATE FAULTY WAVEGUIDES	-			
H538 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY WAVEGUIDE ASSEMBLY		6	60	16

TABLE 43 (CONTINUED)

ELECTRONIC PRINCIPLES STS ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	3LVL PROF CODE	DAFSC 32850 (N=237)	DAFSC 32851 (N=286)	DAFSC 32854 (N=222)
49b. (MICROWAVE OSCILLATORS & AMPLIFIERS) TUNE OR ADJUST	-			
H544 DO YOU TUNE OR ADJUST MICROWAVE OSCILLATORS OR AMPLIFIERS		2	38	5
49c. ISOLATE FAULTY MICROWAVE OSCILLATORS OR AMPLIFIERS	-			
H543 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY MICROWAVE OSCILLATOR OR AMPLIFIER		3	40	9
50b. (RESONANT CAVITIES) ISOLATE FAULTY RESONANT CAVITIES	-			
H554 DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY RESONANT CAVITY		8	43	2
50c. (RESONANT CAVITIES) TUNE/ADJUST	-			
H555 DO YOU TUNE OR ADJUST RESONANT CAVITIES ELECTRICALLY		9	30	2
52c. (RECEIVERS) TROUBLESHOOT CIRCUITS	-			
H576 DO YOU TROUBLESHOOT AM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS		30	33	0
54b. (ANTENNAS) PERFORM ALIGNMENTS	-			
H630 DO YOU PHYSICALLY ALIGN ANTENNAS		24	49	18

TABLE 43 (CONTINUED)

ELECTRONIC PRINCIPLES STS ELEMENTS REQUIRING  
PROFICIENCY CODE REVIEW

STS ITEM (WITH SELECTED SAMPLE TASK)	3LVL PROF CODE	DAFSC 32850 (N=237)	DAFSC 32851 (N=286)	DAFSC 32854 (N=222)
54c. ISOLATE FAULTY ANTENNAS	-			
H635 DO YOU TROUBLESHOOT ANTENNA COMPONENTS		53	51	18
55b. (MICROPHONES) ISOLATE FAULTY MICROPHONES	-			
J670 DO YOU TROUBLESHOOT TO ISOLATE A FAULTY MICROPHONE		72	17	2
55c. TROUBLESHOOT CIRCUITS	-			
J671 DO YOU TROUBLESHOOT MICROPHONES		37	10	0
56b. (SPEAKERS) ISOLATE FAULTY SPEAKERS	-			
J679 DO YOU TROUBLESHOOT TO ISOLATE A FAULTY SPEAKER		70	21	3
56c. TROUBLESHOOT CIRCUITS	-			
J680 DO YOU TROUBLESHOOT SPEAKERS		31	6	1

TABLE 44

TASKS NOT REFERENCED TO  
ELECTRONIC PRINCIPLES ELEMENTS  
(30 PERCENT OR MORE PERFORMING)

TASK	PERCENT MEMBERS		
	DAFSC 32850 (N=221)	DAFSC 32851 (N=481)	DAFSC 32854 (N=222)
B175 DO YOU USE AUDIO SINE-WAVE SIGNAL GENERATORS	54	49	30
B177 DO YOU USE RF LESS THAN 1,000MH SIGNAL GENERATORS	49	53	14
B178 DO YOU USE RF GREATER THAN 1,000MH SIGNAL GENERATORS	19	51	9
B183 DO YOU USE MULTI-FUNCTION (SQUARE/SINE/TRIANGULAR) SIGNAL GENERATORS	17	40	15
D284 DO YOU PERFORM TASKS ON VOLTAGE MULTIPLIERS (DOUBLERS/TRIPLERS)	25	46	20
D285 DO YOU PERFORM TASKS ON DC TO DC CONVERTERS	31	40	28
D286 DO YOU PERFORM TASKS ON INVERTERS (DC TO AC CONVERTERS)	24	44	33

TABLE 45

COMPARISON OF TAFMS GROUP JOB SATISFACTION INDICATORS  
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	328X0 (N=522)	328X1 (N=416)	1987 COMP SAMPLE (N=2,187)	328X0 (N=445)	328X1 (N=521)	1987 COMP SAMPLE (N=994)	328X0 (N=539)	328X1 (N=672)	1987 COMP SAMPLE (N=1,613)
<u>PERCEIVED JOB:</u>									
INTERESTING	77	81	72	73	74	73	70	70	78
SO-SO	14	11	17	16	12	14	19	16	14
DULL	9	8	11	11	12	12	10	12	8
<u>PERCEIVED USE OF TALENT:</u>									
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	80 20	84 16	78 22	77 23	77 23	78 22	74 26	76 24	82 17
<u>PERCEIVED USE OF TRAINING:</u>									
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	76 24	82 18	83 17	70 30	75 25	81 19	66 34	69 31	79 25
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>									
SATISFIED	74	77	70	64	65	69	66	64	71
NEUTRAL	11	10	13	13	12	11	9	13	10
DISSATISFIED	15	13	17	23	22	20	25	22	19
<u>REENLISTMENT INTENTIONS:</u>									
WILL/PROBABLY WILL REENLIST	57	59	57	70	64	67	73	73	73
WILL NOT/PROBABLY WILL NOT REENLIST	42	39	43	29	34	31	11	10	10
WILL RETIRE	*	*	*	*	*	1	15	15	16

\* Denotes less than .5 percent

\*\* Comparative sample composed of all career ladders surveyed in 1987 (includes AFSC 303X1, 303X3, 304X6, 321X1, 427X0, 427X2, 427X3)

TABLE 46

COMPARISON OF JOB SATISFACTION FOR 328X0 CURRENT AND 1981 SURVEYS  
(PERCENT MEMBERS RESPONDING POSITIVELY)

<u>JOB SATISFACTION INFORMATION</u>	<u>1-48 MOS TAFMS</u>		<u>49-96 MOS TAFMS</u>		<u>97+ MOS TAFMS</u>	
	CURRENT (N=522)	1981 (N=425)	CURRENT (N=445)	1981 (N=184)	CURRENT (N=539)	1981 (N=284)
JOB FAIRLY INTERESTING OR BETTER	77	67	73	66	70	74
TALENT UTILIZED FAIRLY WELL OR BETTER	80	74	77	65	74	79
TRAINING UTILIZED FAIRLY WELL OR BETTER	76	68	70	64	66	70
SENSE OF ACCOMPLISHMENT FROM WORK	74	63	64	54	66	66
FAVORABLY CONSIDERING REENLISTMENT	57	32	70	51	73	66

TABLE 47

COMPARISON OF AVIONIC COMMUNICATIONS (AFSC 328X0)  
 JOB SATISFACTION INDICATORS  
 BY MAJOR COMMAND GROUPS  
 (PERCENT MEMBERS RESPONDING)

JOB SATISFACTION INFORMATION	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	MAC (N=166)	SAC (N=162)	TAF (N=193)	MAC (N=162)	SAC (N=103)	TAF (N=179)	MAC (N=147)	SAC (N=141)	TAF (N=250)
JOB FAIRLY INTERESTING OR BETTER	79	76	76	76	64	74	75	62	70
TALENT UTILIZED FAIRLY WELL OR BETTER	84	78	78	81	70	77	77	65	75
TRAINING UTILIZED FAIRLY WELL OR BETTER	85	75	69	72	65	69	71	60	65
SENSE OF ACCOMPLISHMENT FROM WORK	77	70	76	67	59	63	73	57	66
FAVORABLY CONSIDERING REENLISTMENT	57	52	60	73	58	74	71	66	77



TABLE 48

COMPARISON OF JOB SATISFACTION INDICATORS  
FOR AFSC 328X0 SPECIALTY JOB GROUPS  
(PERCENT MEMBERS RESPONDING)

	FIELD SHOP MAINT		GEN MAINT		FLTLINE MAINT		ENROUTE MAINT		AIRLIFT CONTROL ELEMENT		FIELD TNG INSTRUCTOR		TECH TNG CEN INSTR	
	TECHN		TECHN		TECHN		SPECL		SPECL		INSTR		INSTR	
NUMBER IN GROUP	136	9%	492	33%	490	33%	45	3%	21	1%	11	1%	24	2%
PERCENT OF TOTAL SAMPLE														
<u>PERCEIVED JOB:</u>														
INTERESTING	81		77		66		64		90		82		100	
SO-SO	10		15		20		20		5		18		*	
DULL	9		8		13		16		5		*		*	
<u>PERCEIVED USE OF TALENT:</u>														
FAIRLY WELL TO PERFECTLY	83		85		67		53		81		82		96	
LITTLE OR NOT AT ALL	17		15		33		47		19		18		4	
<u>PERCEIVED USE OF TRAINING:</u>														
FAIRLY WELL TO PERFECTLY	85		87		55		38		57		100		96	
LITTLE OR NOT AT ALL	15		13		45		62		43		*		4	
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>														
SATISFIED	76		74		60		62		57		73		88	
NEUTRAL	9		9		12		9		29		*		4	
DISSATISFIED	15		16		28		29		14		27		8	
<u>REENLISTMENT INTENTIONS:</u>														
WILL/PROBABLY WILL REENLIST	63		69		65		78		62		82		71	
WILL NOT/PROBABLY WILL NOT REENLIST	32		29		31		22		29		18		25	
WILL RETIRE	2		2		3		*		9		*		4	

\* Denotes less than .5 percent

NOTE: Where categories do not add to 100%, all respondents did not complete the question

TABLE 48 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS  
FOR AFSC 328X0 SPECIALTY JOB GROUPS  
(PERCENT MEMBERS RESPONDING)

NUMBER IN GROUP PERCENT OF TOTAL SAMPLE	TNG	SUPERVISOR	FLIGHTLINE PRODUCTION MANAGER	QUALITY ASSURANCE INSPECTOR	SAFETY NCO	MAINT CONTROLLER	TECH ORDER DISTRIBUTOR
	MGR						
7	101	11	13	8	16	6	
*	7%	1%	1%	*	1%	*	
<u>PERCEIVED JOB:</u>							
INTERESTING	100	75	73	85	38	69	17
SO-SO	*	13	18	15	50	19	67
DULL	*	11	9	*	12	12	16
<u>PERCEIVED USE OF TALENT:</u>							
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	100	84	81	92	63	57	17
	*	16	9	8	37	37	83
<u>PERCEIVED USE OF TRAINING:</u>							
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	100	76	72	77	50	44	17
	*	24	18	23	50	50	83
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>							
SATISFIED	86	70	73	84	50	62	50
NEUTRAL	*	11	9	8	38	19	*
DISSATISFIED	14	19	18	8	12	19	50
<u>REENLISTMENT INTENTIONS:</u>							
WILL/PROBABLY WILL REENLIST	57	55	83	77	75	69	83
WILL NOT/PROBABLY WILL NOT REENLIST	*	10	17	8	*	19	17
WILL RETIRE	43	33	*	15	25	12	*

\* Denotes less than .5 percent

NOTE: Where categories do not add to 100%, all respondents did not complete the question

TABLE 49

COMPARISON OF JOB SATISFACTION FOR 328X1 CURRENT AND 1981 SURVEYS  
(PERCENT MEMBERS RESPONDING POSITIVELY)

<u>JOB SATISFACTION INFORMATION</u>	<u>1-48 MOS TAFMS</u>		<u>49-96 MOS TAFMS</u>		<u>97+ MOS TAFMS</u>	
	CURRENT (N=416)	1981 (N=495)	CURRENT (N=521)	1981 (N=257)	CURRENT (N=672)	1981 (N=369)
JOB FAIRLY INTERESTING OR BETTER	81	73	74	68	70	69
TALENT UTILIZED FAIRLY WELL OR BETTER	84	74	77	75	76	75
TRAINING UTILIZED FAIRLY WELL OR BETTER	82	69	75	65	69	69
SENSE OF ACCOMPLISHMENT FROM WORK	77	67	65	57	64	63
FAVORABLY CONSIDERING REENLISTMENT	59	34	64	45	73	59

TABLE 50

COMPARISON OF AVIONIC NAVIGATION SYSTEMS (AFSC 328X1)  
 JOB SATISFACTION INDICATORS  
 BY MAJOR COMMAND GROUPS  
 (PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	MAC (N=152)	SAC (N=114)	TAF (N=149)	MAC (N=101)	SAC (N=137)	TAF (N=201)	MAC (N=212)	SAC (N=180)	TAF (N=279)
<u>JOB SATISFACTION INFORMATION</u>									
JOB FAIRLY INTERESTING OR BETTER	85	79	75	75	72	67	74	77	69
TALENT UTILIZED FAIRLY WELL OR BETTER	89	77	84	80	72	78	76	73	77
TRAINING UTILIZED FAIRLY WELL OR BETTER	89	78	73	84	69	64	73	73	69
SENSE OF ACCOMPLISHMENT FROM WORK	81	69	64	67	59	60	64	69	66
FAVORABLY CONSIDERING REENLISTMENT	56	60	78	65	60	64	78	64	74

TABLE 51

COMPARISON OF JOB SATISFACTION INDICATORS  
FOR AFSC 328X1 SPECIALTY JOB GROUPS  
(PERCENT MEMBERS RESPONDING)

NUMBER IN GROUP PERCENT OF TOTAL SAMPLE	GEN MAINT TECHN		FLTLINE MAINT		FIELD SHOP MAINT		FLTLINE MAINT APPRENTICE		FORWARD- LOOKING RADAR MAINT SPECIALIST		MULTI-MODE RADAR MAINT SPECIALIST	
	689 43%	420 26%	420 26%	35 2%	35 2%	19 1%	37 2%	31 2%				
<u>PERCEIVED JOB:</u>												
INTERESTING	50	46	67	65	70	75						
SO-SO	28	31	21	18	*	8						
DULL	21	23	11	18	30	17						
<u>PERCEIVED USE OF TALENT:</u>												
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	73 27	77 23	79 21	76 24	60 40	67 33						
<u>PERCEIVED USE OF TRAINING:</u>												
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	79 21	69 31	81 19	76 24	80 20	83 17						
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>												
SATISFIED	61	61	57	53	40	75						
NEUTRAL	15	8	19	6	10	*						
DISSATISFIED	24	31	24	41	50	25						
<u>REENLISTMENT INTENTIONS:</u>												
WILL/PROBABLY WILL REENLIST	70	77	67	53	80	84						
WILL NOT/PROBABLY WILL NOT REENLIST	25	15	11	6	20	8						
WILL RETIRE	3	8	20	41	*	8						

\* Denotes less than .5 percent

NOTE: Where categories do not add to 100%, all respondents did not complete the question

TABLE 51 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS  
FOR AFSC 328X1 SPECIALTY JOB GROUPS  
(PERCENT MEMBERS RESPONDING)

NUMBER IN GROUP PERCENT OF TOTAL SAMPLE	FIELD TRAINING INSTRUCTOR	TECH TNG CENTER INSTRUCTOR	SUPERVISOR MANAGER	QUALITY ASSURANCE INSPECTOR	MAINTENANCE CONTROLLER	TECHNICAL ORDER DISTRIBUTOR
25 2%	25 2%	26 2%	149 9%	43 3%	16 1%	10 1%
<u>PERCEIVED JOB:</u>						
INTERESTING	76	88	72	79	50	70
SO-SO	16	8	13	12	31	*
DULL	8	4	13	7	19	30
<u>PERCEIVED USE OF TALENT:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	84 16	83 12	73 17	91 9	69 31	90 30
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	96 4	83 27	70 30	88 12	25 75	20 80
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>						
SATISFIED	76	73	67	65	50	60
NEUTRAL	8	4	11	14	6	10
DISSATISFIED	16	19	19	21	44	30
<u>REENLISTMENT INTENTIONS:</u>						
WILL/PROBABLY WILL REENLIST	72	77	62	67	75	70
WILL NOT/PROBABLY WILL NOT REENLIST	12	23	13	16	19	10
WILL RETIRE	16	*	22	14	6	20

\* Denotes less than .5 percent

NOTE: Where categories do not add to 100%, all respondents did not complete the question.

Communications (AFSC 328X0). The data in the job satisfaction tables show the Avionic Communications career ladder to be one where a majority of the personnel indicate they are satisfied with their jobs, the use of their training and talents, and feel a sense of accomplishment in what they do.

In reviewing Table 45, most areas track well with the comparative 1987 sample. There are some areas, however, that personnel of this career ladder were 5 to 13 percentage points below the comparison group. The career personnel (over 97 months TAFMS) group are below the comparison group in all areas except reenlistment. No reason is evident for this difference, but the concern over the merger may have been a contributing factor.

As reflected in Table 46, the responses of the first-term and second-enlistment (49 to 96 months) personnel from this survey show a higher percent of the individuals being satisfied with all areas than those of the previous survey. The career personnel do not compare as favorably with the career personnel of the previous survey. No specific explanation was found for this condition.

Table 47 provides a view of how personnel in AFSC 328X0 TAFMS groups for the three MAJCOM groups perceive their jobs and related factors. There are not any major differences among the groups, although SAC and TAF personnel appear less satisfied than MAC personnel in almost all categories.

Table 48 shows that, with only three exceptions, greater than 50 percent of the personnel in the speciality jobs find their job interesting, feel their talent and training are being used at least fairly well, have a sense of accomplishment from work and plan to reenlist. Only 38 percent of the Enroute Maintenance personnel perceive their training as being used very well. This can be accounted for by the fact that a great deal of this job entails performing Crew Chief tasks and not necessarily the tasks from the areas in which they were trained. Thirty-eight percent of the Safety NCOs see their job as interesting, which can be explained by the fact they are working outside of their AFSC in a purely administrative job. Finally, the low percentage (44 percent) of Maintenance Controllers who feel their training is being utilized well can be accounted for because the job is administrative, with no technical task performance required, thus, not using the training received.

When there are serious problems in a career ladder, survey respondents are usually quite free with write-in comments to complain about perceived problems in the field. Twenty-seven percent of this survey sample used the write-in feature to convey some type of information about equipment maintained, job titles, or tasks not listed. Only seven can be characterized as complaints. They deal primarily with misuse of talents and training because of the Readiness Oriented Logistic System (ROLS) and the establishing of flightline-only jobs. These jobs call for mostly crew chief type tasks and not communications tasks.

Navigations Systems (AFSC 328X1). The data in the job satisfaction tables show the Avionic Navigation Systems career ladder to be one where a majority of the personnel report being satisfied with their jobs, the use of their

training and talents, and feel a sense of accomplishment in what they do. They also indicate more of a willingness to reenlist than others in jobs similar to theirs.

In reviewing Table 45, most areas track well with the comparative 1987 sample. There are some areas, however, where personnel of this career ladder did not compare favorably. The career personnel (over 97 months TAFMS) group, like their compatriots in AFSC 328X0, are below the comparison group in all areas except reenlistment. Again, no reason is evident for this difference, but the concern over the merger may have been a contributing factor.

As reflected in Table 49, the responses of all categories of personnel from this survey show a higher percent of the individuals being satisfied with all areas than those individuals of the previous survey.

A look at how personnel in the three different MAJCOM TAFMS groups of AFSC 328X1 see their job satisfaction is shown in Table 50. The groups compare well with each other, but MAC personnel seem to respond more favorably to the factors.

Table 51 shows that, with four exceptions, greater than 50 percent of the personnel in the specialty jobs find their job interesting, feel their talent and training are being used at least fairly well, have a sense of accomplishment from work, and plan to reenlist. Only 48 percent of the Flightline Maintenance Technician cluster personnel see their job as interesting, which may be explained by the fact these individuals are doing routine tasks and Crew Chief type tasks and not primarily navigation maintenance tasks. No explanation was discovered for the low (40 percent) response of the Forward-Looking Radar Specialists in the sense of accomplishment from work category. The low percentages for Maintenance Controllers (25 percent) and Technical Order Distributors (20 percent) who feel their training is being utilized well can, like AFSC 328X0 personnel, be accounted for by the fact the job is administrative and does not use the technical training received.

Ten percent of this survey sample used the write-in feature to convey some type of information about job titles, equipment maintained or areas worked. There were only 12 comments that could be characterized as complaints. These dealt with working out of the career field and having to do crew chief flightline tasks rather than navigation systems tasks. As with AFSC 328X0 personnel, ROLS was mentioned as the policy which causes the misuse of their talents and training.

#### ADDITIONAL ISSUES

When the survey was requested, there was a desire, on the part of the training community, to determine what avionic navigation functions were being performed by communications personnel. Two separate duty sections, one for field shop tasks (Duty W) and one for flightline tasks (Duty X), were included in the inventory. Tables 52 and 53 provide breakouts of tasks in these two



TABLE 52

AVIONIC NAVIGATION SYSTEMS FIELD SHOP TASKS  
 MOST FREQUENTLY PERFORMED BY 328X0 PERSONNEL  
 (PERCENT MEMBERS PERFORMING)

TASKS	FIRST ENLISTMENT (N=522)	DAFSC 32830/50 (N=926)	DAFSC 32870 (N=579)
W790 SET UP TACAN PECULIAR TEST EQUIPMENT	12	13	12
W791 SET UP VOR/ILS PECULIAR TEST EQUIPMENT	11	10	9
W757 ISOLATE MALFUNCTIONS IN TACAN LRU	10	11	10
W743 ISOLATE MALFUNCTIONS IN ADF LRU	10	8	8
W783 SET UP IFF/SIF/AIMS PECULIAR TEST EQUIPMENT	9	8	8
W759 ISOLATE MALFUNCTIONS IN VOR/ILS LRU	8	9	8
W719 ADJUST TACTICAL AIR NAVIGATION (TACAN) SYSTEMS	7	9	8
W740 BENCH CHECK TACAN LRU	7	8	8
W729 ALIGN TACAN LRU	7	8	8
W746 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS LRU	7	7	7
W779 REMOVE OR REPLACE TACAN SUBASSEMBLIES	7	8	7
W741 BENCH CHECK VOR/ILS LRU	7	7	7
W780 REMOVE OR REPLACE VOR/ILS SRU	7	8	7
W721 ALIGN AUTOMATIC DIRECTION FINDER (ADF) LRU	7	7	6
W730 ALIGN VISUAL OMNI RANGE/INSTRUMENT LANDING (VOR/ILS) LRU	6	6	5
W731 BENCH CHECK ADF LRU	6	5	5

NOTE: Sorted on First-Enlistment column

TABLE 53

AVIONIC NAVIGATION SYSTEMS FLIGHTLINE TASKS  
MOST FREQUENTLY PERFORMED BY 328X0 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	FIRST ENLISTMENT (N=522)	DAFSC 32830/50 (N=926)	DAFSC 32870 (N=579)
X857 REMOVE OR REPLACE VOR/ILS LRU	19	24	21
X800 ISOLATE MALFUNCTIONS IN ADF SYSTEMS	18	20	18
X818 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING TACAN SYSTEMS	18	23	20
X826 OPERATIONALLY CHECK IFF/SIF/AIMS USING FLIGHTLINE TEST EQUIPMENT	18	20	17
X842 OPERATIONALLY CHECK TACAN SYSTEM USING GROUND STATIONS	18	23	21
X849 REMOVE OR REPLACE IFF/SIF/AIMS LRU	18	22	19
X811 ISOLATE MALFUNCTIONS IN TACTICAL AIR NAVIGATION (TACAN) SYSTEMS	17	23	20
X819 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING VOR/ILS	17	29	18
X827 OPERATIONALLY CHECK IFF/SIF/AIMS USING SELF-TESTS	17	21	18
X846 REMOVE OR REPLACE ADF LRU	17	20	17
X820 OPERATIONALLY CHECK ADF SYSTEMS	16	22	19
X841 OPERATIONALLY CHECK TACAN SYSTEM USING FLIGHTLINE TEST EQUIPMENT	16	21	18
X844 OPERATIONALLY CHECK VOR/ILS USING FLIGHTLINE TEST EQUIPMENT	16	22	19
X815 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING ADF SYSTEMS	15	19	16
X814 KEY IFF/SIF/AIMS EQUIPMENT	14	16	14
X803 ISOLATE MALFUNCTIONS IN IDENT FRIEND OR FOE/SELF-IDENT	13	17	15
X812 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE/INSTRUMENT LANDING SYSTEMS (VOR/ ILS)	13	18	15
X845 OPERATIONALLY CHECK VOR/ILS USING GROUND STATIONS	13	19	17
X792 ADJUST AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	8	8	7
X825 OPERATIONALLY CHECK IFF/SIF/AIMS USING BITE	7	11	9

NOTE: Sorted on First-Enlistment column

duties most frequently performed by AFSC 328X0 first-enlistment personnel. Also included on these tables are data relating to 3- or 5-skill level and 7-skill level percent members performing the same tasks. The data on Table 52 shows that of the 75 field shop tasks, very few are performed by as many as 7 percent of the members, and no task being performed by over 13 percent of any category shown. Table 53 provides the most frequently performed flightline tasks from the 71 in the duty. It shows that first-enlistment personnel are less apt to perform these tasks than the people in the other categories. Flightline tasks were more likely to be performed than field shop tasks. What these data indicate is that extensive cross training in avionic navigation systems will be required for personnel who held AFSC 328X0 prior to the merger.

The training community also wanted to know what avionic communications functions were being performed by avionic navigation personnel. A separate duty section for communications tasks (Duty V) was included in the inventory. Table 54 provides a breakout of tasks most frequently performed by AFSC 328X1 first-enlistment personnel. Additionally, data concerning 3- and 5-skill level and 7-skill level personnel are included. These data show that only one task is done by at least 20 percent of AFSC 328X1 first-enlistment personnel and indicate a need for cross-training of these personnel.

Data on inspections performed by communications personnel was also requested by the training community. Table 55 shows the results of the survey. Of the 15 inspections listed in the survey, there are 7 that more than 30 percent of the first-enlistment, and 3- and 5-skill level personnel indicate they perform. There are eight inspections that more than 30 percent of the 7-skill level individuals report performing, but three of these inspections differ from the ones performed by the other groups.

## IMPLICATIONS

These surveys were requested by the respective training communities to obtain current task and equipment data for their evaluation of the training programs in effect at the time of the request. Subsequently, the two AFSCs were selected for merger into AFSC 455X2. Unfortunately, the data were not available for the development of the STS or POI. Data do, though, provide an excellent baseline for the new career ladder, spelling out the jobs performed before RIVET-WORKFORCE reorganization. The data are also of value as a basis for the training community personnel and the MAJCOM functional managers to evaluate the training documents and determine if fine-tuning of the training program might be in order. Senior managers should understand that the more senior personnel of the new career ladder are not as satisfied with their jobs as others in the same fields of work, and programs to reverse the trend might be needed. The data should be of use in helping to confirm what communications systems navigation personnel should be cross-trained in and the navigation systems that communications personnel should know.

TABLE 54

AVIONIC COMMUNICATIONS TASKS MOST  
FREQUENTLY PERFORMED BY 328X1 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	FIRST ENLISTMENT (N=416)	DAFSC 32830/50 (N=959)	DAFSC 32870 (N=650)
V1035 REMOVE OR INSTALL UHF RT UNITS	20	26	23
V1114 OPERATIONALLY CHECK INTERPHONE SYSTEMS	18	12	12
V1032 REMOVE OR INSTALL UHF CONTROL BOXES	18	24	21
V1029 PRESET FREQUENCIES IN UHF CONTROL BOXES	16	20	2
V1118 REMOVE OR INSTALL INTERPHONE CORDS	15	21	19
V1026 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	11	15	15
V1110 ISOLATE MALFUNCTIONS IN INTERPHONE CORDS	10	13	13
V1117 REMOVE OR INSTALL INTERPHONE CORD COMPONENTS	10	15	15
V1113 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	9	14	15
V1055 REMOVE OR INSTALL VHF AM RT UNITS	9	10	11
V1003 REMOVE OR INSTALL HF CONTROL BOXES	8	11	12
V1014 REMOVE OR INSTALL HF RT UNITS	8	12	12
V1120 REMOVE OR INSTALL INTERPHONE STATION CONTROL UNITS	8	14	16
V1082 REMOVE OR INSTALL VHF FM RT UNITS	8	9	10
V1028 OPERATIONALLY CHECK UHF SYSTEMS USING FLIGHTLINE TEST EQUIPMENT (FTE)	7	9	11
V1052 REMOVE OR INSTALL VHF AM CONTROL BOXES	7	9	10
V1103 REMOVE OR INSTALL UHF DF ANTENNAS	7	8	10
V1048 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING VHF AM SYSTEMS	6	7	9
V1119 REMOVE OR INSTALL INTERPHONE MONITOR CONTROL UNITS	6	9	10
V998 PERATE ASSOCIATED SYSTEMS WHILE CHECKING HF SYSTEMS	5	7	9
V1008 REMOVE OR INSTALL HF COUPLERS	5	9	11

NOTE: Sorted on First-Enlistment column

TABLE 55

INSPECTIONS PERFORMED BY 328X0 PERSONNEL  
(PERCENT MEMBERS RESPONDING POSITIVELY)

<u>INSPECTIONS PERFORMED</u>	<u>FIRST ENLISTMENT (N=522)</u>	<u>DAFSC 32830/50 (N=926)</u>	<u>DAFSC 32870 (N=579)</u>
PREVENTATIVE MAINTENANCE	57	60	50
OPERATIONAL OR "POWER-ON"	55	60	57
PHASE	52	51	41
AVIONIC MOCKUP	50	50	46
TIMED COMPLIANCE TECHNICAL ORDER	47	51	47
FOREIGN OBJECT DAMAGE	32	30	22
PERIODIC	30	33	27
ACCEPTANCE	25	29	38
HOME STATION CHECK	24	24	19
MODIFICATION	21	25	31
PREFLIGHT	21	20	13
FORM 781	18	20	18
ACTIVITY 180	14	16	18
INPROCESS	2	4	23
PRODUCTION	2	6	31

NOTE: Sorted on First-Enlistment column

APPENDIX A  
JOB INVENTORY INTERVIEW LOCATIONS

## BASES VISITED DURING JOB INVENTORY DEVELOPMENT

<u>BASE VISITED</u>	<u>RATIONALE</u>
1. Keesler AFB MS	Initial interview at Tech School to assist in the development of the initial job inventory for field review. This training center was used for both AFSC 328X0 and AFSC 328X1 job inventories. Also, base AFSC 328X0 personnel were interviewed because the base is an example of ATC communications maintenance.
2. Tinker AFB OK	Recommended by TAC and MAC functional managers. Unique organizations and aircraft. Largest intransit MAC organization dealing strictly with intransit aircraft. Both AFSC 328X0 and AFSC 328X1 personnel were interviewed.
3. Offutt AFB NE	Recommended by SAC functional manager and Tech School personnel as a unique base with special requirements representative of command and control-type aircraft. Only AFSC 328X0 personnel were interviewed.
5. Altus AFB OK	Recommended by MAC functional manager as a base representative of a MAC avionic communications organization. Only AFSC 328X0 personnel were interviewed.
6. Carswell AFB TX	Recommended by SAC functional manager as a base representative of communications and navigation maintenance performed at B-52 bases. Personnel perform both flightline and field shop maintenance. Both AFSC 328X0 and AFSC 328X1 personnel were interviewed.
7. George AFB CA	Recommended by TAC functional manager as base representative of communications maintenance performed at a TAC base with both flightline and field shop organizations. Additionally, a Tactical Air Support Squadron provides support for tactical air control aircraft. Only AFSC 328X0 personnel were interviewed.
8. Edwards AFB CA	Recommended by Systems Command as a base with special communications requirements because of the test units stationed there. Only AFSC 328X0 personnel were interviewed.

# BASES VISITED DURING JOB INVENTORY DEVELOPMENT (CONTINUED)

BASE VISITED	RATIONALE
9. Nellis AFB NV	Recommended by TAC functional manager as a base with a unique mission because of the aggressor organizations and the type of aircraft. Both AFSC 328X0 and AFSC 328X1 personnel were interviewed.
10. Hurlburt Fld FL	Recommended by MAC functional manager and Tech School personnel as a base with some special communications requirements because of the mission, maintenance concept, and aircraft. Only MAC organization that operates under a COMO-type concept with a field shop unit and a flightline unit. Only AFSC 328X0 personnel were interviewed.
11. Eglin AFB FL	Recommended by MAC and Systems Command functional managers and Tech School personnel as a base which has an organization with AFSC 328X0 personnel performing both communication and navigation tasks. Only AFSC 328X0 personnel were interviewed.
12. Randolph AFB TX	Interviewed NCOIC of avionic navigation maintenance to assist in developing navigation task statements which would be performed by AFSC 328X0 personnel in an organization where the maintenance function for avionic navigation and communication are integrated. Only AFSC 328X1 individual was interviewed.
13. Bergstrom AFB TX	Recommended by TAC functional manager as a base where personnel perform both communications and navigation duties. Provides Forward-Looking Radar-equipped aircraft, as well as a variety of other navigation systems. Only AFSC 328X1 personnel were interviewed.
13. Travis AFB CA	Recommended by MAC functional manager as a base with navigation equipment specific to the C-5 and C-141 aircraft. It is also representative of MAC navigation maintenance mission. Only AFSC 328X1 personnel were interviewed.



APPENDIX B

SELECTED REPRESENTATIVE TASKS PERFORMED BY  
AFSC 328X0 CAREER LADDER STRUCTURE GROUPS

TABLE I

GROUP NUMBER AND TITLE: STG124, FIELD SHOP MAINTENANCE TECHNICIAN CLUSTER  
 GROUP SIZE: 136 PERCENT MEMBERS OF SAMPLE: 9%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 63  
 AVERAGE TICF: 55 AVERAGE TASKS PERFORMED: 114

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
F164 CLEAN COMPONENTS OR PARTS	99
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	98
F163 BENCH CHECK AVIONIC SYSTEMS MOCKUP LRU	98
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	96
G218 BENCH CHECK UHF RECEIVER-TRANSMITTERS	94
G213 ALIGN UHF RECEIVER-TRANSMITTERS	94
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	94
F173 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS MOCKUPS	94
E141 OPERATE MICROFICHE VIEWERS	93
G216 BENCH CHECK UHF CONTROL UNITS	92
F167 FABRICATE COAXIAL CABLES	92
E140 MAKE ENTRIES ON SUPPLY TURN IN OR ISSUE FORMS, SUCH AS DD FORMS 1577, AF FORMS 2005, OR DD FORMS 1150	91
F171 INVENTORY CONSOLIDATED TOOL KITS (CTK)	91
G227 ISOLATE MALFUNCTIONS IN UHF RECEIVER-TRANSMITTERS	90
L391 BENCH CHECK INTERPHONE CONTROL BOXES	90
F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	88
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	87
F166 FABRICATE AVIONIC CONNECTORS	87
G225 ISOLATE MALFUNCTIONS IN UHF CONTROL UNITS	86
F169 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	85
L397 ISOLATE MALFUNCTIONS IN INTERPHONE CONTROL BOXES	83
F170 INSTALL AVIONIC SYSTEMS MOCKUP SUBASSEMBLIES	83
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	82
F172 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS CABLES	82
G210 ADJUST ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	81
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	79
F181 PERFORM CORROSION CONTROL ON AVIONIC EQUIPMENT	79
E110 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	78
K359 BENCH CHECK HF RECEIVER-TRANSMITTERS	76
F192 REMOVE OR REPLACE AVIONIC SYSTEMS MOCKUP COMPONENTS	76

TABLE II

GROUP NUMBER AND TITLE: STG129, GENERAL MAINTENANCE TECHNICIAN CLUSTER  
 GROUP SIZE: 492 PERCENT MEMBERS OF SAMPLE: 33%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 68  
 AVERAGE TICF: 59 AVERAGE TASKS PERFORMED: 195

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
F164 CLEAN COMPONENTS OR PARTS	97
F201 SOLDER AVIONIC SYSTEM WIRING	97
L404 OPERATIONALLY CHECK INTERPHONE SYSTEMS	97
G232 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	96
G218 BENCH CHECK UHF RECEIVER-TRANSMITTERS	96
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	95
F199 SAFETY WIRE AVIONIC SYSTEM LRU	95
F163 BENCH CHECK AVIONIC SYSTEMS MOCKUP LRU	95
F203 TEST CONTINUITY OF COAXIAL CABLES	95
F202 SPLICE AVIONIC SYSTEM WIRING	95
G252 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	94
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	94
F171 INVENTORY CONSOLIDATED TOOL KITS (CTK)	94
G236 PRESET FREQUENCIES IN UHF CONTROL UNITS	94
L398 ISOLATE MALFUNCTIONS IN INTERPHONE CORDS	94
L395 FABRICATE INTERPHONE CORDS	94
G213 ALIGN UHF RECEIVER-TRANSMITTERS	94
G227 ISOLATE MALFUNCTIONS IN UHF RECEIVER-TRANSMITTERS	93
F176 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING	93
F167 FABRICATE COAXIAL CABLES	93
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	93
G239 REMOVE OR REPLACE UHF ANTENNAS	93
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	92
L397 ISOLATE MALFUNCTIONS IN INTERPHONE CONTROL BOXES	92
G210 ADJUST ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	92
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	92
F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	92
L402 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	91
F209 VISUALLY INSPECT AIRCRAFT COMMUNICATIONS SYSTEMS	91
L409 REMOVE OR REPLACE INTERPHONE CORDS	91

TABLE III

GROUP NUMBER AND TITLE: STG079, FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER

GROUP SIZE: 490

PERCENT MEMBERS OF SAMPLE: 33%

AVERAGE GRADE: E-4

AVERAGE TAFMS: 75

AVERAGE TICF: 65

AVERAGE TASKS PERFORMED: 114

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	96
G239 REMOVE OR REPLACE UHF ANTENNAS	93
F199 SAFETY WIRE AVIONIC SYSTEM LRU	93
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	92
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	92
L404 OPERATIONALLY CHECK INTERPHONE SYSTEMS	92
G252 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	92
F202 SPLICE AVIONIC SYSTEM WIRING	92
G236 PRESET FREQUENCIES IN UHF CONTROL UNITS	91
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	91
F201 SOLDER AVIONIC SYSTEM WIRING	91
F187 REMOVE OR REPLACE AVIONIC SYSTEM COAXIAL CABLES	90
F203 TEST CONTINUITY OF COAXIAL CABLES	90
L409 REMOVE OR REPLACE INTERPHONE CORDS	89
F207 TRANSPORT TEST EQUIPMENT TO OR FROM FLIGHTLINE	88
F209 VISUALLY INSPECT AIRCRAFT COMMUNICATIONS SYSTEMS	87
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	87
F176 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING	87
F186 REMOVE OR REPLACE AVIONIC MOUNTS	87
F188 REMOVE OR REPLACE AVIONIC SYSTEM MULTIPLE WIRING PLUG PINS	87
G232 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	85
G233 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING UHF SYSTEMS	85
F180 OPERATE SUPPORT EQUIPMENT, SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	85
F190 REMOVE OR REPLACE AVIONIC SYSTEM WIRING	82
G246 REMOVE OR REPLACE UHF CONTROL UNITS	81
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	81
F200 SET UP FLIGHTLINE MAINTENANCE STANDS	80
L403 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING INTERPHONE SYSTEMS	79
F172 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS CABLES	77
F184 PERFORM TIME COMPLIANCE TECHNICAL ORDER (TCTO) MODIFICATIONS ON AVIONIC SYSTEMS	76

TABLE IV

GROUP NUMBER AND TITLE: STG060, ENROUTE MAINTENANCE SPECIALIST  
 GROUP SIZE: 45 PERCENT MEMBERS OF SAMPLE: 3%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 79  
 AVERAGE TICF: 69 AVERAGE TASKS PERFORMED: 102

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
V701 POSITION AIRCRAFT CHOCKS	93
V715 WALK WINGS OR TAILS DURING AIRCRAFT TOWING OPERATIONS	93
L407 REMOVE OR REPLACE INTERPHONE CONTROL BOXES	93
V704 REMOVE AIRCRAFT CHOCKS	91
F185 REMOVE OR REPLACE AIRCRAFT ACCESS PLATES OR PANELS	89
G252 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	87
V703 RECOVER AIRCRAFT	84
V690 LAUNCH AIRCRAFT	84
V686 GROUND AIRCRAFT	84
V689 JACK UP AIRCRAFT	84
G246 REMOVE OR REPLACE UHF CONTROL UNITS	84
V702 POSITION NONPOWERED OR POWERED AEROSPACE GROUND EQUIPMENT (AGE) TO AIRCRAFT	82
F180 OPERATE SUPPORT EQUIPMENT, SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	82
G239 REMOVE OR REPLACE UHF ANTENNAS	82
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	80
F199 SAFETY WIRE AVIONIC SYSTEM LRU	80
F201 SOLDER AVIONIC SYSTEM WIRING	80
V713 TOW AIRCRAFT	78
F202 SPLICE AVIONIC SYSTEM WIRING	78
F187 REMOVE OR REPLACE AVIONIC SYSTEM COAXIAL CABLES	78
H291 REMOVE OR REPLACE VHF AM/FM RECEIVER-TRANSMITTERS	76
V684 ASSIST IN ENGINE RUN TESTS	73
L409 REMOVE OR REPLACE INTERPHONE CORDS	73
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	73
V700 PERFORM THRU FLIGHT INSPECTIONS	71
V709 SERVICE AIRCRAFT HYDRAULIC SYSTEMS	71
F200 SET UP FLIGHTLINE MAINTENANCE STANDS	71
V683 ASSIST IN ENGINE REPLACEMENT	71
H286 REMOVE OR REPLACE VHF AM/FM CONTROL UNITS	71
V699 PERFORM SINGLE-POINT AIRCRAFT REFUELING	69

TABLE V

GROUP NUMBER AND TITLE: STG062, AIRLIFT CONTROL ELEMENT SPECIALIST  
 GROUP SIZE: 21 PERCENT MEMBERS OF SAMPLE: 1%  
 AVERAGE GRADE: E-5 AVERAGE TAFMS: 107  
 AVERAGE TICF: 98 AVERAGE TASKS PERFORMED: 63

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	90
E110 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	90
E141 OPERATE MICROFICHE VIEWERS	86
F167 FABRICATE COAXIAL CABLES	86
E140 MAKE ENTRIES ON SUPPLY TURN IN OR ISSUE FORMS, SUCH AS DD FORMS 1577, AF FORMS 2005, OR DD FORMS 1150	81
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	81
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	76
F196 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	76
E153 PROCESS PARTS FOR TURN IN TO SUPPLY	76
F164 CLEAN COMPONENTS OR PARTS	71
F203 TEST CONTINUITY OF COAXIAL CABLES	71
F169 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	71
K378 REMOVE OR REPLACE HF COUPLERS	62
F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	62
K367 ISOLATE MALFUNCTIONS IN HF SYSTEMS	62
G230 ISOLATE MALFUNCTIONS IN UHF SATELLITE RADIO SYSTEMS	62
E132 MAINTAIN SUPPLY LOGS OF ORDERED PARTS	57
F168 FORWARD TEST EQUIPMENT TO PRECISION MEASUREMENT EQUIPMENT LABORATORY (PMEL)	57
K386 REMOVE OR REPLACE HF RECEIVER-TRANSMITTERS	57
F166 FABRICATE AVIONIC CONNECTORS	57
G236 PRESET FREQUENCIES IN UHF CONTROL UNITS	57
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	57
E129 MAINTAIN RECORDS ON ACCOUNTABLE EQUIPMENT	52
E142 OPERATE MINI- OR MICROCOMPUTERS	52
E133 MAINTAIN TECHNICAL PUBLICATION FILES	52
F204 TEST MODIFIED OR NEW EQUIPMENT	52
F165 EVALUATE MODIFIED OR NEW EQUIPMENT	52
E158 TYPE CORRESPONDENCE	48
E128 MAINTAIN PRECISION MEASUREMENT EQUIPMENT LABORATORY (PMEL) TEST EQUIPMENT SCHEDULES	48
B38 WRITE CORRESPONDENCE	48

TABLE VI

GROUP NUMBER AND TITLE: STG117, FIELD TRAINING INSTRUCTOR  
 GROUP SIZE: 11 PERCENT MEMBERS OF SAMPLE: 1%  
 AVERAGE GRADE: E-6 AVERAGE TAFMS: 144  
 AVERAGE TICF: 144 AVERAGE TASKS PERFORMED: 18

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	100
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	100
D91 PREPARE LESSON PLANS	100
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	91
F163 BENCH CHECK AVIONIC SYSTEMS MOCKUP LRU	91
D83 DEVELOP TRAINING AIDS	91
D68 ADMINISTER TESTS	91
F162 ALIGN AVIONIC SYSTEMS MOCKUP LINE REPLACEABLE UNITS (LRU)	91
G218 BENCH CHECK UHF RECEIVER-TRANSMITTERS	91
G213 ALIGN UHF RECEIVER-TRANSMITTERS	91
B18 COUNSEL PERSONNEL	91
E133 MAINTAIN TECHNICAL PUBLICATION FILES	82
K359 BENCH CHECK HF RECEIVER-TRANSMITTERS	82
K365 ISOLATE MALFUNCTIONS IN HF RECEIVER-TRANSMITTERS	82
B38 WRITE CORRESPONDENCE	82
G227 ISOLATE MALFUNCTIONS IN UHF RECEIVER-TRANSMITTERS	82
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	73
E142 OPERATE MINI- OR MICROCOMPUTERS	73
K356 BENCH CHECK HF COUPLERS	73
E148 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	73
C44 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	64
K352 ALIGN HF RECEIVER-TRANSMITTERS	64
G236 PRESET FREQUENCIES IN UHF CONTROL UNITS	64
F173 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS MOCKUPS	64
G210 ADJUST ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	64
K363 ISOLATE MALFUNCTIONS IN HF COUPLERS	64
D98 WRITE TEST QUESTIONS	64
H266 ALIGN VHF AM/FM RECEIVER-TRANSMITTERS	55
D96 SCORE TESTS	55
D93 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	55

TABLE VII

GROUP NUMBER AND TITLE: STG177, TECHNICAL TRAINING CENTER INSTRUCTOR  
 GROUP SIZE: 24 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-5 AVERAGE TAFMS: 125  
 AVERAGE TICF: 105 AVERAGE TASKS PERFORMED: 17

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
D73 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	100
D91 PREPARE LESSON PLANS	100
D68 ADMINISTER TESTS	96
D96 SCORE TESTS	92
D77 COUNSEL RESIDENT COURSE STUDENTS ON TRAINING PROGRESS	83
B18 COUNSEL PERSONNEL	75
D98 WRITE TEST QUESTIONS	75
D83 DEVELOP TRAINING AIDS	75
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	67
D82 DEVELOP RESIDENT COURSE CURRICULUM MATERIALS	50
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	42
E103 CONDUCT SAFETY LECTURES	42
D89 MAINTAIN TRAINING RECORDS	38
F205 TRACE SIGNALS THROUGH CIRCUITS USING SCHEMATICS	33
B37 INTERPRET POLICIES FOR SUBORDINATES	29
L391 BENCH CHECK INTERPHONE CONTROL BOXES	25
F206 TRACE SIGNALS THROUGH CIRCUITS USING WIRING DIAGRAMS	25
D93 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	25
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	25
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	25
D80 DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	21
E141 OPERATE MICROFICHE VIEWERS	21
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	21
D74 CONDUCT TRAINING BRIEFINGS	17
C44 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	17
F163 BENCH CHECK AVIONIC SYSTEMS MOCKUP LRU	17
E143 ORIENT NEWLY ASSIGNED PERSONNEL	17
E144 PARTICIPATE IN STAFF MEETINGS	17
E148 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	17
D88 IMPLEMENT TRAINING PROGRAMS	13



TABLE VIII

GROUP NUMBER AND TITLE: STG160, TRAINING MANAGER  
 GROUP SIZE: 7 PERCENT MEMBERS OF SAMPLE: \*  
 AVERAGE GRADE: E-7 AVERAGE TAFMS: 198  
 AVERAGE TICF: 160 AVERAGE TASKS PERFORMED: 39

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
D92 PREPARE TRAINING SCHEDULES	100
C65 WRITE APR	100
D89 MAINTAIN TRAINING RECORDS	100
E143 ORIENT NEWLY ASSIGNED PERSONNEL	100
D85 DIRECT TRAINING PROGRAMS, OTHER THAN OJT	86
D95 SCHEDULE PERSONNEL FOR TRAINING	86
A16 SCHEDULE WORK ASSIGNMENTS	86
B38 WRITE CORRESPONDENCE	86
B37 INTERPRET POLICIES FOR SUBORDINATES	86
A15 SCHEDULE PERSONNEL FOR ABSENCES, SUCH AS LEAVE OR TEMPORARY DUTY (TDY) ASSIGNMENTS	86
B18 COUNSEL PERSONNEL	86
D77 COUNSEL RESIDENT COURSE STUDENTS ON TRAINING PROGRESS	71
D88 IMPLEMENT TRAINING PROGRAMS	71
E158 TYPE CORRESPONDENCE	71
E144 PARTICIPATE IN STAFF MEETINGS	71
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	71
D97 WRITE JUSTIFICATIONS FOR TRAINING REQUIREMENTS	71
D69 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	71
C55 EVALUATE WORK SCHEDULES	57
C44 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	57
D73 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	57
C56 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	57
D91 PREPARE LESSON PLANS	57
D70 ASSIGN RESIDENT COURSE INSTRUCTORS	57
D72 CONDUCT QUALIFICATION TRAINING	57
D68 ADMINISTER TESTS	57
D82 DEVELOP RESIDENT COURSE CURRICULUM MATERIALS	57
D98 WRITE TEST QUESTIONS	57
D83 DEVELOP TRAINING AIDS	57
D96 SCORE TESTS	57

\* Indicates less than .5 percent members

TABLE IX

GROUP NUMBER AND TITLE: STG091, SUPERVISOR CLUSTER  
 GROUP SIZE: 101 PERCENT MEMBERS OF SAMPLE: 7%  
 AVERAGE GRADE: E-6 AVERAGE TAFMS: 129  
 AVERAGE TICF: 123 AVERAGE TASKS PERFORMED: 130

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
B18 COUNSEL PERSONNEL	98
E143 ORIENT NEWLY ASSIGNED PERSONNEL	96
C65 WRITE APR	93
A4 DETERMINE WORK PRIORITIES	91
A15 SCHEDULE PERSONNEL FOR ABSENCES, SUCH AS LEAVE OR TEMPORARY DUTY (TDY) ASSIGNMENTS	90
B37 INTERPRET POLICIES FOR SUBORDINATES	88
E141 OPERATE MICROFICHE VIEWERS	88
C58 INSPECT COMPLETED JOBS	87
B38 WRITE CORRESPONDENCE	86
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	86
A16 SCHEDULE WORK ASSIGNMENTS	83
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	83
E44 PARTICIPATE IN STAFF MEETINGS	82
B22 DIRECT MAINTENANCE OF EQUIPMENT	81
A3 DETERMINE REQUIREMENTS FOR RESOURCES, SUCH AS EQUIPMENT, PERSONNEL, AND SUPPLIES	80
B19 DIRECT FIELD SHOP MAINTENANCE ACTIVITIES	79
D89 MAINTAIN TRAINING RECORDS	79
D76 COUNSEL OJT TRAINEES ON PROGRESS	79
D69 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	78
E39 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	78
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	77
C44 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	76
C56 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	75
D79 DETERMINE OJT REQUIREMENTS	75
B24 DIRECT PREPARATION OF REQUISITIONS FOR SUPPLIES OR EQUIPMENT	74
E140 MAKE ENTRIES ON SUPPLY TURN IN OR ISSUE FORMS, SUCH AS DD FORMS 1577, AF FORMS 2005, OR DD FORMS 1150	74
B35 INITIATE CORRECTIVE ACTIONS BASED ON INSPECTION DEFICIENCY REPORTS	72
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	72
E110 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	72
C64 VERIFY MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEM (MMICS) LISTINGS	71

TABLE X

GROUP NUMBER AND TITLE: STG088, FLIGHTLINE PRODUCTION MANAGER  
 GROUP SIZE: 11 PERCENT MEMBERS OF SAMPLE: 1%  
 AVERAGE GRADE: E-7 AVERAGE TAFMS: 216  
 AVERAGE TICF: 194 AVERAGE TASKS PERFORMED: 37

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
B20 DIRECT FLIGHTLINE MAINTENANCE ACTIVITIES	100
C58 INSPECT COMPLETED JOBS	100
E104 COORDINATE FLIGHTLINE MAINTENANCE ACTIVITIES	91
E147 PERFORM VEHICLE INSPECTIONS USING AF FORMS 1800 (OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT)	91
A4 DETERMINE WORK PRIORITIES	91
E105 DETERMINE REPAIR PRIORITIES	82
E146 PERFORM OPERATOR MAINTENANCE ON VEHICLES	82
C60 INSPECT REPORTED DISCREPANCIES	73
B37 INTERPRET POLICIES FOR SUBORDINATES	73
F179 OPERATE MAINTENANCE DISPATCH VEHICLES	64
C59 INSPECT MAINTENANCE ACTIVITIES	64
E144 PARTICIPATE IN STAFF MEETINGS	64
A16 SCHEDULE WORK ASSIGNMENTS	64
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	64
C62 INVESTIGATE EVENTS, SUCH AS ACCIDENTS AND INCIDENTS	64
C65 WRITE APR	64
B18 COUNSEL PERSONNEL	64
B22 DIRECT MAINTENANCE OF EQUIPMENT	55
B19 DIRECT FIELD SHOP MAINTENANCE ACTIVITIES	55
B27 DIRECT UTILIZATION OF EQUIPMENT	55
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	55
E161 VERIFY NOT MISSION CAPABLE SUPPLY (NMCS) OR PARTIAL MIS- SION CAPABLE SUPPLY (PMCS) STATUS OF REQUISITIONED PARTS	55
C44 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	55
C39 ANALYZE WORKLOAD REQUIREMENTS	55
E130 MAINTAIN SPECIALIST DISPATCH BOARDS	45
E110 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	45
A3 DETERMINE REQUIREMENTS FOR RESOURCES, SUCH AS EQUIPMENT, PERSONNEL, AND SUPPLIES	45
E159 UPDATE MMICS USING AF FORMS 2426 (TRAINING REQUEST AND COMPLETION NOTIFICATION)	45
B38 WRITE CORRESPONDENCE	45
E102 BRIEF INSPECTION FINDINGS TO SUPERVISORY PERSONNEL	36

TABLE XI

GROUP NUMBER AND TITLE: STG123, QUALITY ASSURANCE INSPECTOR  
 GROUP SIZE: 13 PERCENT MEMBERS OF SAMPLE: 1%  
 AVERAGE GRADE: E-6 AVERAGE TAFMS: 159  
 AVERAGE TICF: 154 AVERAGE TASKS PERFORMED: 36

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
B25 DIRECT QUALITY ASSURANCE PROGRAMS	92
C44 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	85
C59 INSPECT MAINTENANCE ACTIVITIES	85
B38 WRITE CORRESPONDENCE	85
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	85
C60 INSPECT REPORTED DISCREPANCIES	85
C62 INVESTIGATE EVENTS, SUCH AS ACCIDENTS AND INCIDENTS	85
E148 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	85
C48 EVALUATE INSPECTION REPORTS	77
E144 PARTICIPATE IN STAFF MEETINGS	77
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	77
E157 SUBMIT RECOMMENDATIONS FOR CHANGES TO GOVERNING DIRECTIVES	77
E150 PREPARE BRIEFINGS	77
B30 EVALUATE SYSTEM INSPECTIONS	69
C42 EVALUATE ADMINISTRATIVE FORMS, FILES, OR PROCEDURES	69
E141 OPERATE MICROFICHE VIEWERS	69
C53 EVALUATE SUGGESTIONS	69
E143 ORIENT NEWLY ASSIGNED PERSONNEL	69
F209 VISUALLY INSPECT AIRCRAFT COMMUNICATIONS SYSTEMS	62
C58 INSPECT COMPLETED JOBS	62
C41 CONDUCT GROUND SAFETY INSPECTIONS	62
E102 BRIEF INSPECTION FINDINGS TO SUPERVISORY PERSONNEL	62
B26 DIRECT SYSTEM INSPECTIONS	62
A5 DRAFT MAINTENANCE ACTIVITY REPORTS	62
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	62
C65 WRITE APR	62
B18 COUNSEL PERSONNEL	62
E158 TYPE CORRESPONDENCE	54
E142 OPERATE MINI- OR MICROCOMPUTERS	54
E117 MAINTAIN ADMINISTRATIVE FILES	54

TABLE XII

GROUP NUMBER AND TITLE: STG094, SAFETY NCO

GROUP SIZE: 8

PERCENT MEMBERS OF SAMPLE: 1%

AVERAGE GRADE: E-6

AVERAGE TAFMS: 188

AVERAGE TICF: 179

AVERAGE TASKS PERFORMED: 26

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
C41 CONDUCT GROUND SAFETY INSPECTIONS	100
A11 PLAN SAFETY PROGRAMS	100
B32 IMPLEMENT SAFETY PROGRAMS	100
C51 EVALUATE SAFETY PROGRAMS	100
E103 CONDUCT SAFETY LECTURES	88
C62 INVESTIGATE EVENTS, SUCH AS ACCIDENTS AND INCIDENTS	75
B38 WRITE CORRESPONDENCE	75
B18 COUNSEL PERSONNEL	75
B17 CONDUCT STAFF MEETINGS	62
C40 CONDUCT FIRE INSPECTIONS	50
E144 PARTICIPATE IN STAFF MEETINGS	50
A4 DETERMINE WORK PRIORITIES	50
B24 DIRECT PREPARATION OF REQUISITIONS FOR SUPPLIES OR EQUIPMENT	50
A7 ESTABLISH ORGANIZATIONAL STANDARD OPERATING PROCEDURES (SOP)	50
C65 WRITE APR	38
E147 PERFORM VEHICLE INSPECTIONS USING AF FORMS 1800 (OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT)	38
A3 DETERMINE REQUIREMENTS FOR RESOURCES, SUCH AS EQUIPMENT, PERSONNEL, AND SUPPLIES	38
E146 PERFORM OPERATOR MAINTENANCE ON VEHICLES	38
A13 PREPARE ANSWERS TO SERVICE EVALUATION REPORTS	38
B35 INITIATE CORRECTIVE ACTIONS BASED ON INSPECTION DEFICIENCY REPORTS	38
C48 EVALUATE INSPECTION REPORTS	38
C54 EVALUATE USE OF RESOURCES, SUCH AS EQUIPMENT, SUPPLIES, AND WORKSPACE	38
E102 BRIEF INSPECTION FINDINGS TO SUPERVISORY PERSONNEL	38
C64 VERIFY MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEM (MMICS) LISTINGS	38
E141 OPERATE MICROFICHE VIEWERS	38
E143 ORIENT NEWLY ASSIGNED PERSONNEL	38
B21 DIRECT MAINTENANCE DEBRIEFING TEAMS	25

TABLE XIII

GROUP NUMBER AND TITLE: STG053, MAINTENANCE CONTROLLER

GROUP SIZE: 16

PERCENT MEMBERS OF SAMPLE: 1%

AVERAGE GRADE: E-5

AVERAGE TAFMS: 133

AVERAGE TICF: 106

AVERAGE TASKS PERFORMED: 13

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
B20 DIRECT FLIGHTLINE MAINTENANCE ACTIVITIES	88
A4 DETERMINE WORK PRIORITIES	81
E104 COORDINATE FLIGHTLINE MAINTENANCE ACTIVITIES	69
E130 MAINTAIN SPECIALIST DISPATCH BOARDS	69
E100 ASSIGN JOB CONTROL NUMBERS	56
B19 DIRECT FIELD SHOP MAINTENANCE ACTIVITIES	50
E105 DETERMINE REPAIR PRIORITIES	50
E161 VERIFY NOT MISSION CAPABLE SUPPLY (NMCS) OR PARTIAL MIS- SION CAPABLE SUPPLY (PMCS) STATUS OF REQUISITIONED PARTS	50
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	50
B22 DIRECT MAINTENANCE OF EQUIPMENT	44
E142 OPERATE MINI- OR MICROCOMPUTERS	38
B18 COUNSEL PERSONNEL	38
E111 INPUT DATA INTO COMPUTERS FROM REMOTE TERMINALS	38
L391 BENCH CHECK INTERPHONE CONTROL BOXES	31
A16 SCHEDULE WORK ASSIGNMENTS	31
E123 MAINTAIN EQUIPMENT STATUS BOARDS	25
E147 PERFORM VEHICLE INSPECTIONS USING AF FORMS 1800 (OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT)	25
E144 PARTICIPATE IN STAFF MEETINGS	25
B38 WRITE CORRESPONDENCE	25
B37 INTERPRET POLICIES FOR SUBORDINATES	25
C64 VERIFY MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEM (MMICS) LISTINGS	25
B27 DIRECT UTILIZATION OF EQUIPMENT	25
C65 WRITE APR	19
B26 DIRECT SYSTEM INSPECTIONS	19
B17 CONDUCT STAFF MEETINGS	13
E136 MAKE ENTRIES ON AF FORMS 2430 (SPECIALIST DISPATCH CONTROL LOG)	13
C39 ANALYZE WORKLOAD REQUIREMENTS	13
E120 MAINTAIN ALERT MOBILITY OR RECALL ROSTERS	13
E135 MAINTAIN WORKLOAD STATUS BOARDS	13

TABLE XIV

GROUP NUMBER AND TITLE: STG168, TECHNICAL ORDER DISTRIBUTOR  
 GROUP SIZE: 6 PERCENT MEMBERS OF SAMPLE: \*  
 AVERAGE GRADE: E-5 AVERAGE TAFMS: 124  
 AVERAGE TICF: 82 AVERAGE TASKS PERFORMED: 15

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
E133 MAINTAIN TECHNICAL PUBLICATION FILES	100
B23 DIRECT MAINTENANCE OF TECHNICAL ORDER (TO) FILES	100
E141 OPERATE MICROFICHE VIEWERS	83
E115 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS	83
E119 MAINTAIN AFTO FORMS 110 (TECHNICAL ORDER/CPIN DISTRIBUTION RECORD)	67
E116 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	67
E142 OPERATE MINI- OR MICROCOMPUTERS	50
B29 ESTABLISH REQUIREMENTS FOR PUBLICATION LIBRARIES	50
E151 PREPARE REQUISITIONS FOR PUBLICATIONS, SUPPLIES, OR EQUIPMENT	50
E148 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	50
F171 INVENTORY CONSOLIDATED TOOL KITS (CTK)	33
D78 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	33
C65 WRITE APR	33
E140 MAKE ENTRIES ON SUPPLY TURN IN OR ISSUE FORMS, SUCH AS DD FORMS 1577, AF FORMS 2005, OR DD FORMS 1150	33
E139 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	33
C53 EVALUATE SUGGESTIONS	33
B38 WRITE CORRESPONDENCE	33
E158 TYPE CORRESPONDENCE	33
E138 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	33
A3 DETERMINE REQUIREMENTS FOR RESOURCES, SUCH AS EQUIPMENT, PERSONNEL, AND SUPPLIES	33
D89 MAINTAIN TRAINING RECORDS	17
C61 INSPECT SUPPLIES FOR STANDARDIZATION	17
B27 DIRECT UTILIZATION OF EQUIPMENT	17
C58 INSPECT COMPLETED JOBS	17
L395 FABRICATE INTERPHONE CORDS	17
L398 ISOLATE MALFUNCTIONS IN INTERPHONE CORDS	17
C42 EVALUATE ADMINISTRATIVE FORMS, FILES, OR PROCEDURES	17

\* Indicates less than .5 percent members

APPENDIX C

SELECTED REPRESENTATIVE TASKS PERFORMED BY  
AFSC 328X1 CAREER LADDER STRUCTURE GROUPS



TABLE I

GROUP NUMBER AND TITLE: STG138, GENERAL MAINTENANCE TECHNICIAN CLUSTER  
 GROUP SIZE: 689 PERCENT MEMBERS OF SAMPLE: 42%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 83  
 AVERAGE TICF: 67 AVERAGE TASKS PERFORMED: 330

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
G208 CLEAN LINE REPLACEABLE UNITS (LRU)	96
H263 BENCH CHECK MOCKUP LRU	96
H265 INSPECT MOCKUPS	95
G206 CLEAN AVIONIC EQUIPMENT	95
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	95
H261 ALIGN MOCKUP LINE REPLACEABLE UNITS (LRU)	94
G219 INSPECT PARTS RECEIVED FROM SUPPLY	94
G259 TRACE CIRCUITS USING SCHEMATICS	94
I280 BENCH CHECK VOR RECEIVERS	93
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	92
H267 ISOLATE MALFUNCTIONS TO MOCKUP LRU	92
H272 REMOVE OR INSTALL MOCKUP LRU	92
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	92
I276 ALIGN VOR RECEIVERS	92
G210 CLEAN TEST EQUIPMENT	92
G260 TRACE SIGNALS USING WIRING DIAGRAMS	92
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	92
I285 ISOLATE MALFUNCTIONS IN VOR RECEIVERS	92
H266 ISOLATE MALFUNCTIONS TO MOCKUP COMPONENTS	91
H271 REMOVE OR INSTALL MOCKUP COMPONENTS	91
E110 LOCATE STOCK NUMBERS ON MICROFICHE	91
J308 BENCH CHECK GLIDESLOPE RECEIVERS	91
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	91
G250 SAFETY WIRE SYSTEM COMPONENTS	91
H268 ISOLATE MALFUNCTIONS TO MOCKUP SUBASSEMBLIES	90
H264 INSPECT MOCKUP WIRING	90
H262 ALIGN MOCKUP SUBASSEMBLIES	90
M432 BENCH CHECK TACAN RT UNITS	90
H273 REMOVE OR INSTALL MOCKUP SUBASSEMBLIES	90
E140 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS AF FORM 2005, OR DD FORM 1150	90

TABLE II

GROUP NUMBER AND TITLE: STG093, FLIGHTLINE MAINTENANCE TECHNICIAN CLUSTER  
 GROUP SIZE: 420 PERCENT MEMBERS OF SAMPLE: 26%  
 AVERAGE GRADE: E-3 AVERAGE TAFMS: 83  
 AVERAGE TICF: 72 AVERAGE TASKS PERFORMED: 146

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
M461 REMOVE OR INSTALL TACAN CONTROL BOXES	95
M483 REMOVE OR INSTALL TACAN RT UNITS	95
G250 SAFETY WIRE SYSTEM COMPONENTS	94
U951 REMOVE OR INSTALL IFF/AIMS CONTROL BOXES	93
U971 REMOVE OR INSTALL IFF/AIMS RT UNITS	92
E139 MAKE ENTRIES ON AFTO FORMS 781 SERIES (AIRCRAFT FORMS)	92
J324 OPERATIONALLY CHECK GLIDESLOPES USING FLIGHTLINE TEST EQUIPMENT (FTE)	92
G258 TEST CONTINUITY OF AVIONIC SYSTEM WIRING	91
M452 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	91
G227 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS WIRING	91
G223 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING CABLES	90
G222 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS COAXIAL CABLES	90
G226 ISOLATE MALFUNCTIONS TO AVIONIC SYSTEMS COAXIAL CABLES	90
F162 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	89
M450 OPERATIONALLY CHECK TACAN SYSTEMS USING BUILT-IN TEST EQUIPMENT (BITE)	88
G257 TEST CONTINUITY OF AVIONIC SYSTEM COAXIAL CABLES	88
U942 OPERATIONALLY CHECK IFF/AIMS USING FLIGHTLINE TES EQUIPMENT (FTE)	88
M466 REMOVE OR INSTALL TACAN INDICATORS	88
J331 REMOVE OR INSTALL GLIDESLOPE RECEIVERS	87
U960 REMOVE OR INSTALL IFF/AIMS KIT COMPUTERS	87
J334 REMOVE OR INSTALL ILS CONTROL BOXES	87
G256 TEST CONTINUITY OF AVIONIC SYSTEM CABLES	86
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	86
G260 TRACE SIGNALS USING WIRING DIAGRAMS	86
I302 REMOVE OR INSTALL VOR RECEIVERS	86
G249 REMOVE OR INSTALL RADIO FREQUENCY (RF) COAXIAL CONNECTORS	86
G254 SPLICE AVIONIC SYSTEM WIRING	86
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	85
M458 REMOVE OR INSTALL TACAN ANTENNAS	85
G252 SOLDER AVIONIC SYSTEM COAXIAL CABLES	84

TABLE III

GROUP NUMBER AND TITLE: STG051, FIELD SHOP MAINTENANCE APPRENTICE CLUSTER  
 GROUP SIZE: 35 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 46  
 AVERAGE TICF: 29 AVERAGE TASKS PERFORMED: 99

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	94
H263 BENCH CHECK MOCKUP LRU	91
E110 LOCATE STOCK NUMBERS ON MICROFICHE	89
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	86
E140 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS AF FORM 2005, OR DD FORM 1150	86
H261 ALIGN MOCKUP LINE REPLACEABLE UNITS (LRU)	86
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	83
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	83
G208 CLEAN LINE REPLACEABLE UNITS (LRU)	80
H272 REMOVE OR INSTALL MOCKUP LRU	77
G210 CLEAN TEST EQUIPMENT	77
I280 BENCH CHECK VOR RECEIVERS	77
I276 ALIGN VOR RECEIVERS	77
G259 TRACE CIRCUITS USING SCHEMATICS	74
G209 CLEAN SHOP REPLACEABLE UNITS (SRU)	74
H265 INSPECT MOCKUPS	74
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	71
G219 INSPECT PARTS RECEIVED FROM SUPPLY	71
E104 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	71
G250 SAFETY WIRE SYSTEM COMPONENTS	69
G206 CLEAN AVIONIC EQUIPMENT	69
H273 REMOVE OR INSTALL MOCKUP SUBASSEMBLIES	69
H264 INSPECT MOCKUP WIRING	69
H262 ALIGN MOCKUP SUBASSEMBLIES	66
H271 REMOVE OR INSTALL MOCKUP COMPONENTS	66
H267 ISOLATE MALFUNCTIONS TO MOCKUP LRU	66
U919 BENCH CHECK IFF/AIMS RT UNITS	63
M432 BENCH CHECK TACAN RT UNITS	63
I285 ISOLATE MALFUNCTIONS IN VOR RECEIVERS	63
J311 BENCH CHECK MARKER BEACON RECEIVERS	63

TABLE IV

GROUP NUMBER AND TITLE: STG080, FLIGHTLINE MAINTENANCE APPRENTICE CLUSTER  
 GROUP SIZE: 19 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-3 AVERAGE TAFMS: 46  
 AVERAGE TICF: 29 AVERAGE TASKS PERFORMED: 99

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
U942 OPERATIONALLY CHECK IFF/AIMS USING FLIGHTLINE TEST EQUIPMENT (FTE)	89
M483 REMOVE OR INSTALL TACAN RT UNITS	89
U940 KEY IFF/AIMS	84
E139 MAKE ENTRIES ON AFTO FORMS 781 SERIES (AIRCRAFT FORMS)	84
M448 OPERATIONALLY CHECK TACAN INDICATORS	84
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	79
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	79
U951 REMOVE OR INSTALL IFF/AIMS CONTROL BOXES	79
M461 REMOVE OR INSTALL TACAN CONTROL BOXES	79
U960 REMOVE OR INSTALL IFF/AIMS KIT COMPUTERS	74
G251 SET UP FLIGHTLINE MAINTENANCE STANDS	74
M450 OPERATIONALLY CHECK TACAN SYSTEMS USING BUILT-IN TEST EQUIPMENT (BITE)	74
V1035 REMOVE OR INSTALL UHF RT UNITS	74
U971 REMOVE OR INSTALL IFF/AIMS RT UNITS	74
U941 OPERATIONALLY CHECK IFF/AIMS USING BITE	68
F162 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	68
M452 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	68
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	63
G250 SAFETY WIRE SYSTEM COMPONENTS	63
M481 REMOVE OR INSTALL TACAN RT MX-9577 ADAPTERS	63
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	63
F194 TRANSPORT TEST EQUIPMENT OR UNITS TO AND FROM FLIGHTLINE	58
J324 OPERATIONALLY CHECK GLIDESLOPES USING FLIGHTLINE TEST EQUIPMENT (FTE)	58
V1029 PRESET FREQUENCIES IN UHF CONTROL BOXES	58
M451 OPERATIONALLY CHECK TACAN SYSTEMS USING FLIGHTLINE TEST EQUIPMENT (FTE)	58
G258 TEST CONTINUITY OF AVIONIC SYSTEM WIRING	58
G255 TEST AND EVALUATE AVIONIC EQUIPMENT	53
J325 OPERATIONALLY CHECK LOCALIZERS USING FTE	53
F195 WALK WINGS OR TAILS DURING AIRCRAFT TOWING OPERATIONS	53
V1032 REMOVE OR INSTALL UHF CONTROL BOXES	53

TABLE V

GROUP NUMBER AND TITLE: STG108, FORWARD-LOOKING RADAR MAINTENANCE SPECIALIST  
 GROUP SIZE: 37 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 75  
 AVERAGE TICF: 67 AVERAGE TASKS PERFORMED: 201

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
S824 ALIGN FLR POWER SUPPLIES	100
S821 ALIGN FLR COMPUTERS	100
S831 BENCH CHECK FLR POWER SUPPLIES	100
S828 BENCH CHECK FLR COMPUTERS	100
S820 ALIGN FLR ANTENNA RECEIVERS	100
S829 BENCH CHECK FLR CONTROL BOXES	100
S827 BENCH CHECK FLR ANTENNA RECEIVERS	97
S825 ALIGN FLR TRANSMITTERS	95
S838 ISOLATE MALFUNCTIONS IN FLR POWER SUPPLIES	95
S864 REMOVE OR INSTALL FLR POWER SUPPLY CARDS	95
S835 ISOLATE MALFUNCTIONS IN FLR COMPUTERS	95
S832 BENCH CHECK FLR TRANSMITTERS	95
H261 ALIGN MOCKUP LINE REPLACEABLE UNITS (LRU)	95
S836 ISOLATE MALFUNCTIONS IN FLR CONTROL BOXES	95
S830 BENCH CHECK FLR FORWARD INDICATORS	92
S834 ISOLATE MALFUNCTIONS IN FLR ANTENNA RECEIVERS	92
H272 REMOVE OR INSTALL MOCKUP LRU	92
H273 REMOVE OR INSTALL MOCKUP SUBASSEMBLIES	92
H262 ALIGN MOCKUP SUBASSEMBLIES	92
H263 BENCH CHECK MOCKUP LRU	92
H271 REMOVE OR INSTALL MOCKUP COMPONENTS	92
H268 ISOLATE MALFUNCTIONS TO MOCKUP SUBASSEMBLIES	92
S822 ALIGN FLR CONTROL BOX SETTINGS	92
H267 ISOLATE MALFUNCTIONS TO MOCKUP LRU	92
H266 ISOLATE MALFUNCTIONS TO MOCKUP COMPONENTS	92
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	89
G260 TRACE SIGNALS USING WIRING DIAGRAMS	89
G259 TRACE CIRCUITS USING SCHEMATICS	89
S823 ALIGN FLR FORWARD INDICATORS	89
S840 ISOLATE MALFUNCTIONS IN FLR TRANSMITTERS	89

TABLE VI

GROUP NUMBER AND TITLE: STG477, MULTI-MODE RADAR MAINTENANCE SPECIALIST  
 GROUP SIZE: 31 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 66  
 AVERAGE TICF: 67 AVERAGE TASKS PERFORMED: 187

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
F161 OPEN RADOMES	100
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	100
Q724 BENCH CHECK MM INDICATORS	100
Q739 OPERATE ASSOCIATED SYSTEMS WHILE CHECKING MM SYSTEMS	100
Q722 BENCH CHECK MM COMPUTERS	100
Q752 REMOVE OR INSTALL MM INDICATORS	100
Q746 REMOVE OR INSTALL MM COMPUTER CARDS	100
Q756 REMOVE OR INSTALL MM RECEIVER SUBASSEMBLIES	100
Q747 REMOVE OR INSTALL MM COMPUTERS	100
Q715 ALIGN MULTI-MODE (MM) COMPUTERS	100
Q757 REMOVE OR INSTALL MM RECEIVERS	100
Q744 REMOVE OR INSTALL MM ANTENNAS	100
E139 MAKE ENTRIES ON AFTO FORMS 781 SERIES (AIRCRAFT FORMS)	100
E110 LOCATE STOCK NUMBERS ON MICROFICHE	100
Q748 REMOVE OR INSTALL MM CONTROL BOXES	100
Q723 BENCH CHECK MM CONTROL BOXES	100
G253 SOLDER AVIONIC SYSTEM WIRING	100
Q736 ISOLATE MALFUNCTIONS IN MM SYSTEMS	97
H261 ALIGN MOCKUP LINE REPLACEABLE UNITS (LRU)	97
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	97
Q717 ALIGN MM INDICATORS	97
H272 REMOVE OR INSTALL MOCKUP LRU	97
Q730 ISOLATE MALFUNCTIONS IN MM COMPUTERS	97
Q726 BENCH CHECK MM RECEIVERS	97
Q734 ISOLATE MALFUNCTIONS IN MM RECEIVERS	97
E104 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	97
Q725 BENCH CHECK MM POWER SUPPLIES	97
E140 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS AF FORM 2005, OR DD FORM 1150	97
Q718 ALIGN MM POWER SUPPLIES	97
Q753 REMOVE OR INSTALL MM POWER SUPPLIES	97

TABLE VII

GROUP NUMBER AND TITLE: STG078, FIELD TRAINING INSTRUCTOR  
 GROUP SIZE: 25 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-4 AVERAGE TAFMS: 157  
 AVERAGE TICF: 148 AVERAGE TASKS PERFORMED: 132

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
D95 PREPARE LESSON PLANS	96
D81 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	96
H263 BENCH CHECK MOCKUP LRU	92
H262 ALIGN MOCKUP SUBASSEMBLIES	92
H261 ALIGN MOCKUP LINE REPLACEABLE UNITS (LRU)	92
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	88
E142 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	88
H268 ISOLATE MALFUNCTIONS TO MOCKUP SUBASSEMBLIES	84
G214 IDENTIFY TEST EQUIPMENT MALFUNCTIONS	84
U903 ALIGN IFF/AIMS RECEIVER-TRANSMITTER (RT) UNITS	80
P641 ALIGN SW RECEIVER-TRANSMITTER (RT) UNITS	80
P645 BENCH CHECK SW ANTENNAS	80
G259 TRACE CIRCUITS USING SCHEMATICS	76
D96 PROCURE TRAINING AIDS	76
U919 BENCH CHECK IFF/AIMS RT UNITS	76
H266 ISOLATE MALFUNCTIONS TO MOCKUP COMPONENTS	76
H267 ISOLATE MALFUNCTIONS TO MOCKUP LRU	76
P653 BENCH CHECK SW INDICATORS	76
P632 ADJUST SEARCH AND WEATHER (SW) SYSTEMS	76
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	72
G260 TRACE SIGNALS USING WIRING DIAGRAMS	72
P655 BENCH CHECK SW RT UNITS	72
P639 ALIGN SW INDICATORS	72
P637 ALIGN SW INDICATOR POWER SUPPLIES	72
H273 REMOVE OR INSTALL MOCKUP SUBASSEMBLIES	72
H271 REMOVE OR INSTALL MOCKUP COMPONENTS	72
B28 COUNSEL PERSONNEL ON PERSONAL PROBLEMS	72
B27 COUNSEL PERSONNEL ON MILITARY-RELATED PROBLEMS	72
E132 MAINTAIN TECHNICAL ORDER (TO) FILES	68
D80 COUNSEL TRAINEES ON TRAINING PROGRESS	68

TABLE VIII

GROUP NUMBER AND TITLE: STG055, TECHNICAL TRAINING CENTER INSTRUCTOR  
 GROUP SIZE: 26 PERCENT MEMBERS OF SAMPLE: 2%  
 AVERAGE GRADE: E-5 AVERAGE TAFMS: 110  
 AVERAGE TICF: 95 AVERAGE TASKS PERFORMED: 21

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
D95 PREPARE LESSON PLANS	100
D98 SCORE TESTS	96
D100 WRITE TEST QUESTIONS	92
D78 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	85
D80 COUNSEL TRAINEES ON TRAINING PROGRESS	85
D75 ADMINISTER TESTS	81
B27 COUNSEL PERSONNEL ON MILITARY-RELATED PROBLEMS	73
D81 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	73
D84 DEVELOP RESIDENT COURSE MATERIALS	62
D89 EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	62
B28 COUNSEL PERSONNEL ON PERSONAL PROBLEMS	62
B25 CONDUCT SAFETY BRIEFINGS	54
D93 MAINTAIN TRAINING RECORDS	50
D96 PROCURE TRAINING AIDS	50
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	35
G259 TRACE CIRCUITS USING SCHEMATICS	31
E135 MAKE ENTRIES ON AFTO FORMS 244	27
D90 EVALUATE TRAINING METHODS	27
E137 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	27
R763 ALIGN STATION KEEPING EQUIPMENT (SKE) ANTENNA PEDESTALS	23
E132 MAINTAIN TECHNICAL ORDER (TO) FILES	23
C49 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	23
G260 TRACE SIGNALS USING WIRING DIAGRAMS	23
B45 INTERPRET POLICIES FOR SUBORDINATES	23
D97 PROCURE TRAINING EQUIPMENT	23
G214 IDENTIFY TEST EQUIPMENT MALFUNCTIONS	23
D83 DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	23
E142 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	23
B41 IMPLEMENT SAFETY PROGRAMS	19
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	19



TABLE IX

GROUP NUMBER AND TITLE: STG031, SUPERVISOR AND MANAGER CLUSTER  
 GROUP SIZE: 149 PERCENT MEMBERS OF SAMPLE: 9%  
 AVERAGE GRADE: E-6 AVERAGE TAFMS: 189  
 AVERAGE TICF: 140 AVERAGE TASKS PERFORMED: 110

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
C72 WRITE APR	92
B27 COUNSEL PERSONNEL ON MILITARY-RELATED PROBLEMS	89
A6 DETERMINE WORK PRIORITIES	86
B28 COUNSEL PERSONNEL ON PERSONAL PROBLEMS	86
A23 WRITE EVALUATION REPORTS	85
B45 INTERPRET POLICIES FOR SUBORDINATES	85
A22 SCHEDULE WORK ASSIGNMENTS	82
A10 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	78
C49 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	76
A5 DETERMINE SUPPLY REQUIREMENTS	75
A20 SCHEDULE LEAVES	75
D93 MAINTAIN TRAINING RECORDS	75
A3 DETERMINE EQUIPMENT REQUIREMENTS	74
D80 COUNSEL TRAINEES ON TRAINING PROGRESS	71
E110 LOCATE STOCK NUMBERS ON MICROFICHE	70
A4 DETERMINE PERSONNEL REQUIREMENTS	69
C64 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	68
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	68
B25 CONDUCT SAFETY BRIEFINGS	68
A8 DEVELOP WORK METHODS OR PROCEDURES	66
A2 ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	66
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	66
D76 ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	65
C66 INSPECT CONSOLIDATED TOOL KITS (CTK)	64
E140 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS AF FORM 2005, OR DD FORM 1150	62
C47 ANALYZE WORKLOAD REQUIREMENTS	62
B41 IMPLEMENT SAFETY PROGRAMS	62
C63 EVALUATE WORK SCHEDULES	61
D81 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	61
D77 CONDUCT OJT	61

TABLE X

GROUP NUMBER AND TITLE: STG052, QUALITY ASSURANCE INSPECTOR  
 GROUP SIZE: 43 PERCENT MEMBERS OF SAMPLE: 3%  
 AVERAGE GRADE: E-6 AVERAGE TAFMS: 125  
 AVERAGE TICF: 112 AVERAGE TASKS PERFORMED: 52

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
C56 EVALUATE MAINTENANCE OF EQUIPMENT	95
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	85
E105 INSPECT AFTO FORMS 244 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	85
G217 INSPECT EQUIPMENT SHOCK MOUNTS	85
C66 INSPECT CONSOLIDATED TOOL KITS (CTK)	81
H265 INSPECT MOCKUPS	78
A23 WRITE EVALUATION REPORTS	72
B35 DIRECT QUALITY ASSURANCE PROGRAMS	72
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	71
C49 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	67
G216 INSPECT DESICCANT CRYSTALS	67
D81 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	65
C68 INVESTIGATE INCIDENTS	64
C55 EVALUATE MAINTENANCE INSPECTION REPORT FINDINGS	60
A19 SCHEDULE INSPECTIONS	60
H264 INSPECT MOCKUP WIRING	60
E139 MAKE ENTRIES ON AFTO FORMS 781 SERIES (AIRCRAFT FORMS)	60
E142 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	60
C74 WRITE SPECIAL REPORTS	56
C61 EVALUATE SUGGESTIONS	51
C67 INVESTIGATE ACCIDENTS	49
G219 INSPECT PARTS RECEIVED FROM SUPPLY	49
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	49
C70 REVIEW EVALUATION REPORTS	47
G220 INSPECT WAVEGUIDES FOR CORROSION OR MOISTURE	47
D90 EVALUATE TRAINING METHODS	44
C59 EVALUATE SAFETY PROGRAMS	44
G218 INSPECT PARTS RECEIVED FROM MANUFACTURERS	44
G255 TEST AND EVALUATE AVIONIC EQUIPMENT	42
D88 EVALUATE OJT TRAINEES	42

TABLE XI

GROUP NUMBER AND TITLE: STG069, MAINTENANCE CONTROLLER  
 GROUP SIZE: 16 PERCENT MEMBERS OF SAMPLE: 1%  
 AVERAGE GRADE: E-5 AVERAGE TAFMS: 125  
 AVERAGE TICF: 112 AVERAGE TASKS PERFORMED: 11

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
A6 DETERMINE WORK PRIORITIES	88
E102 ASSIGN JOB CONTROL NUMBERS	88
B29 DIRECT FLIGHTLINE MAINTENANCE ACTIVITIES	75
E127 MAINTAIN SPECIALIST DISPATCH BOARDS	75
E128 MAINTAIN STATUS BOARDS	68
E103 COORDINATE FLIGHTLINE MAINTENANCE ACTIVITIES WITH WORKLOAD CONTROL SECTIONS	68
E121 MAINTAIN NOT MISSION CAPABLE SUPPLY (NMCS) LISTINGS	37
E122 MAINTAIN PARTLY MISSION CAPABLE SUPPLY (PMCS) STATUS OF REQUISITIONED PARTS	37
B36 DIRECT SHOP MAINTENANCE ACTIVITIES	31
R763 ALIGN STATION KEEPING EQUIPMENT (SKE) ANTENNA PEDESTALS	31
B33 DIRECT MAINTENANCE OF STATUS BOARDS	31
E136 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	31
D77 CONDUCT OJT	31
A22 SCHEDULE WORK ASSIGNMENTS	25
E134 MAKE ENTRIES ON AF FORMS 2430 (SPECIALIST DISPATCH CONTROL LOG)	18
E113 MAINTAIN CHARTS	18
D80 COUNSEL TRAINEES ON TRAINING PROGRESS	18
E110 LOCATE STOCK NUMBERS ON MICROFICHE	18
C72 WRITE APR	18
A5 DETERMINE SUPPLY REQUIREMENTS	12
D93 MAINTAIN TRAINING RECORDS	12
E125 MAINTAIN RECALL ROSTERS	12
E104 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	12
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	12
C47 ANALYZE WORKLOAD REQUIREMENTS	12
D88 EVALUATE OJT TRAINEES	12
A23 WRITE EVALUATION REPORTS	12
B45 INTERPRET POLICIES FOR SUBORDINATES	12
E132 MAINTAIN TECHNICAL ORDER (TO) FILES	12

TABLE XII

GROUP NUMBER AND TITLE: STG102, TECHNICAL ORDER DISTRIBUTOR  
 GROUP SIZE: 10 PERCENT MEMBERS OF SAMPLE: 1%  
 AVERAGE GRADE: E-6 AVERAGE TAFMS: 161  
 AVERAGE TICF: 110 AVERAGE TASKS PERFORMED: 23

TASKS ARE LISTED IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
E112 MAINTAIN AFTO FORMS 110 (TECHNICAL ORDER/CPIN DISTRIBUTION RECORD)	100
B34 DIRECT MAINTENANCE OF TECHNICAL ORDER (TO) FILES	100
E132 MAINTAIN TECHNICAL ORDER (TO) FILES	100
E109 LOCATE PART NUMBERS IN TECHNICAL PUBLICATIONS	70
E149 PREPARE REQUISITIONS FOR PUBLICATIONS	60
D81 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	60
E142 PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	60
B35 DIRECT QUALITY ASSURANCE PROGRAMS	50
E124 MAINTAIN PUBLICATION LIBRARIES	50
B45 INTERPRET POLICIES FOR SUBORDINATES	50
A8 DEVELOP WORK METHODS OR PROCEDURES	50
G229 LOCATE MAINTENANCE INFORMATION IN AIR FORCE TECHNICAL ORDERS	40
A6 DETERMINE WORK PRIORITIES	40
A11 ESTABLISH PUBLICATION LIBRARIES	40
C49 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	40
A19 SCHEDULE INSPECTIONS	40
C61 EVALUATE SUGGESTIONS	40
E104 IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	40
E110 LOCATE STOCK NUMBERS ON MICROFICHE	40
E105 INSPECT AFTO FORMS 244 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	40
C56 EVALUATE MAINTENANCE OF EQUIPMENT	30
E148 PREPARE REQUISITIONS FOR EQUIPMENT	30
G217 INSPECT EQUIPMENT SHOCK MOUNTS	30
C66 INSPECT CONSOLIDATED TOOL KITS (CTK)	30
G215 INSPECT AVIONIC EQUIPMENT FOR CORROSION	30
A12 ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	30
D96 PROCURE TRAINING AIDS	30
R763 ALIGN STATION KEEPING EQUIPMENT (SKE) ANTENNA PEDESTALS	20
E126 MAINTAIN RECORDS ON ACCOUNTABLE EQUIPMENT	20
D86 DIRECT TRAINING PROGRAMS, OTHER THAN OJT	20